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East Europe Report

ECONOMIC AND INDUSTRIAL AFFAIRS

No. 2056

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CONTENTS

FULFILLMENT OF 1980 SIX-MONTH ECONOMIC PLAN

Sofia STATISTICHESKI IZVESTIYA in Bulgarian No 2, 1980 pp iii-vi

[Excerpts] General Remarks

This publication comes out once a quarter and contains annual, quarterly and monthly statistical data categorized by basic indicators characterizing the socioeconomic development of the Bulgarian People's Republic.

The program of STATISTICHESKI IZVESTIYA [Statistical News] comprises 12 sections:

I. Basic data on the development of the national economy
II. Population
III. Population's standard of living
IV. Labor
V. Capital investment
VI. Industry
VII. Agriculture
VIII. Transportation
IX. Communications
X. Domestic trade and prices
XI. Tourism
XII. Foreign trade

Data for all sectors are categorized by organizational structure and composition of enterprises for the period in question.

Cost indices are published in prices of the year in question; annual indices of industrial and agricultural output, of capital investment, goods turnover and prices, foreign barter trade, and monthly indices of industrial output are calculated in comparable prices; annual indices are calculated with 1970 as the base, while those for a period of less than a year are calculated on the base of the corresponding period of the preceding year.

Data on the monetary income, expenditures and consumption of households are from the representative observation of household budgets.

Data for the current year are preliminary and are subject to revision in subsequent issues.

Explanation of abbreviations and symbols:

0	Amount less than half of the unit being used
-	No instance
.	Data lacking
PAK	Industrial-agrarian complex
APK	Agroindustrial complex

CONTENTS

DEVELOPMENT OF THE NATIONAL ECONOMY DURING THE FIRST HALF OF 1980

In keeping with the requirements of the new economic approach and as a result of the widely launched socialist competition among labor collectives, all sectors and activities of the national economy achieved new, still higher rates of development during the half-year.

Significant progress was made in raising the efficiency and quality of social production.

Industry

The enterprises of state and cooperative industry produced 4.4 percent more output than in the first half of 1979. The highest rate of production growth was achieved by state enterprises in the following industries: chemical and rubber industry 12.8 percent; electric and thermal power 7.6 percent; machine-building and metal-working industry 7.0 percent; glass and china-and-pottery industry 6.9 percent; fuel industry 6.0 percent; leather, fur and shoe industry 5.4 percent etc.

An increase in industrial output was achieved in all okrugs, with the highest rate of growth achieved by Shumen, Razgrad, Ruse, Stara Zagora, Sofia, Khaskovo, Blagoevgrad, Turgovishte okrugs etc.

The production of items of special importance for the national economy increased. Production increases over the corresponding period in 1979 were as follows: electric power 6.8 percent; coal 4.3 percent; cast iron and ferroalloys 2.3 percent; pig iron for steel production 2.1 percent.

The machine-building and metal-working industry produced 9.7 percent more electric motors, 25.2 percent more power transformers, 35.7 percent more lathes, 1.4 percent more battery-operated trucks, 7.1 percent more motor trucks, 17.5 percent more television sets etc.

The chemical industry increased the production of nitrogen fertilizers by 12.7 percent, caustic soda by 54.4 percent, soda ash by 0.5 percent.

The output of the state enterprises in the paper and pulp industry increased 2.2 percent. Production of pulp was 103,800 tons, of paper 152,400 tons, of cardboard 29,600 tons.

The textile industry continued to develop at an increasing rate, as a result of which 4.6 percent more industrial output was produced. The production of woolen fabrics increased 8.4 percent, of silk fabrics 8.6 percent.

The per-capita labor productivity of industrial-production personnel in state industrial enterprises, calculated on the basis of total industrial output, increased 3.0 percent over the first half of 1979. The highest growth rate was achieved in the chemical and rubber industry, the machine-building and metal-working industry, the textile industry etc.

In state and cooperative industrial enterprises the number of industrial-production manual and office workers increased 1.1 percent (1.2 percent for state enterprises alone, 0.8 percent for cooperative enterprises alone).

The average monthly pay of manual and office workers increased 14.3 percent over the first half of 1979.

Agriculture

During the first half, agricultural work in the sphere of crop production was performed under adverse meteorological conditions. As a result of the increased concern of agricultural workers, good results were achieved in animal husbandry. The productivity of farm animals in agricultural organizations and units increased. The average milk yield per cow on fodder rose 1.9 percent during the half-year as compared with the same period in 1979.

Production increases over the same period in 1979 were as follows: cow's milk, 9,098,000 more liters, or 9.3 percent; 3.7 million more eggs, or 0.7 percent.

During the half-year all categories of farms produced 8.0 percent more meat from horned cattle than in the same period last year, 3.8 percent more meat from small cattle, 2.6 percent more eggs.

Capital Investment

The volume of capital investment utilized during the half-year was 361.9 million leva, or 17.7 percent more than in the same period last year.

The bulk thereof was invested in sectors of material production, with the greatest share of capital investment going for industry.

The modernization and reconstruction of existing production capacity continued also during the first half of 1980 in the entire national economy. The funds utilized for modernization and reconstruction exceeded 875 million leva, i.e., 36.3 percent of the total volume of capital investment.

Capital assets in the amount of 1,420.8 million leva were put into operation, 47.3 percent thereof being new machinery and equipment.

Transportation.

As compared with the first half of 1979, common-carrier transportation moved 3.7 percent more passengers.

Labor productivity per employee rose 26.0 percent in railroad operations, 13.1 percent in motor transport, 3.1 percent in maritime transport.

Communications

Revenues from communication services increased 17.0 percent (by 21,940,000 leva) over the first half of 1979.

The labor productivity of persons employed in operations rose 13.4 percent.

Trade

During the first half of 1980 the retail trade network and food-service establishments realized a retail goods turnover in the amount of 5,651.6 million leva

There were increases in the sales of most commodities such as rice, edible vegetable oils, sugar products, milk, eggs, jams, jellies and preserves, lemons and oranges, brandies, woolen and silk fabrics, sewn goods, knit outer and underwear, stockings, shoes, furniture, radio receivers and television sets, home refrigerators etc.

Favorable results were also achieved in our foreign trade relations. Foreign barter trade increased 13.4 percent in comparison with the same period in 1979.

As compared with the first half of 1979 there were more exports of lathes, electronic calculators, battery-operated trucks, electric telphers, typewriters, ships and ship equipment, soda ash, nitrogen fertilizers, Oriental tobacco, eggs, sterilized canned vegetables, stewed fruits etc.

More metal-cutting machinery, steam and water power plants, coke, cast iron, coal, sheet iron, wool, clocks, refrigerators etc. were imported than in the 1979 half-year.

The favorable results achieved in the national economy during the first half are a good foundation for the successful fulfillment of their annual production assignments by the labor collectives in our country.

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ADMINISTRATIVE DEVELOPMENTS, STRUCTURE OF AGRICULTURE DESCRIBED

Sofia POLITICHESKA PROSVETA in Bulgarian No 8, 1980 pp 44-51

[Article by Yordan Kostadinov, candidate of economic sciences: "Agro-industrial Integration and the Two Forms of Socialist Ownership"]

[Text] The rapprochement and merger between the two forms of socialist ownership in our country was initiated immediately following the victory of socialist production relations in agriculture (after 1958-1960). The process particularly intensified in the 1970s, after the April 1970 BCP Central Committee Plenum and the 1971 10th BCP Congress, when the development of APK [Agroindustrial Complexes] and other organizational and production forms of agroindustrial integration began to be established. It is continuing to develop at an even faster pace at the present stage which is characterized by the steady development and improvement of state and cooperative ownership and the intensification of their interpenetration and enrichment, their gradual coming together and their merger within a single ownership by the whole people.

Agroindustrial integration is one of the main prerequisites for the interpenetration and enrichment of the two forms of ownership and for upgrading the level of their maturity.[1] Prior to the development of agroindustrial complexes (APK), to a certain extent, this process was accomplished through the activities of intercooperative and state-cooperative enterprises of different natures. Under the conditions of the cooperative APK (those which involve exclusively the participation of the TKZS [Labor Cooperative Farms] and which, at first, accounted for more than half--55.4 percent--a far higher level of socialization of the cooperative form of ownership was achieved compared with socialization in the older TKZS. Whereas the average size of the cultivated land per TKZS ranged between 38,000 and 42,000 decares, while the number of cooperative farmers employed ranged between 1,500 and 1,700, the average land under cultivation per APK (1971) was 242,988 decares, while the number of employed individuals averaged 6,609.

The rapprochement between the two forms of socialist ownership is taking place more directly in the mixed state-cooperative agroindustrial complexes (APK)(with the participation of the TKZS and the DZS [State Farms]), the

[illegible] industrial-agrarian trusts (PAO), [illegible] scientific-production [illegible] (NPO), the National Agro-industrial Complex (NAPK), and the National [illegible] (NAO) with the development and the operating of [illegible] organizations meeting the specific conditions of our country, favorable conditions and prerequisites for the drawing closer to each [illegible] and enriching state and cooperative ownership and improving relations [illegible] through the [illegible] and the state forms of ownership were [illegible].

[illegible] APK may [illegible] express the problem of reciprocal interweaving [illegible] enrichment of the two forms of [illegible] socialist ownership through the activities of the [illegible] specialized agricultural enterprises which, in recent years, have developed into sectorial and service enterprises. These two basic types of enterprises are being established with the participation of KKZ and DZI and with the elimination of the economic and juridical [illegible] of such economic organizations in a number of APK. The specialized sectorial enterprises work on an intracost accounting basis. The APK has become the basic economic organization which can establish contractual [illegible] with other economic organizations and enterprises.

[illegible] agroindustrial complexes are socialist territorial separate economic organizations. They are juridical persons operating on a cost accounting basis, engaged in the effective production of agricultural and other commodities, applying industrial methods, and insuring a high level of specialization and specialization of production and integration with the processing industry. They retain and further develop the positive basic principles of farming and management characteristic of the IKZS: democratic management, systematic application of cost accounting and self financing, individual and collective material incentive, and so on.[2]

[illegible] a higher level of socialization of socialist ownership [illegible] make possible their interpenetration, enrichment, [illegible] and merger. These levels of organic interaction between the [illegible] of ownership are theoretically substantiated in the PCP program [illegible] a stage of [illegible] and continuous complex process of development. [illegible] the practical viewpoint, it would be difficult at any given [illegible] to [illegible] reached by their interpenetration or the [illegible] of [illegible] rapprochement, and merger. All these facets [illegible] one way or another, at each stage of development of the two [illegible] of ownership and enterprises their level of maturity.

[illegible] aspects of their interpenetration, enrichment, and [illegible] are [illegible] apparent in the development and improvement of [illegible] forms of ownership in our country. In the next few years this [illegible] will be manifested very much more strongly through their merger as [illegible] in the [illegible] of the implementation of this interaction, development and improvement, agroindustrial integration plays, and will continue [illegible] a difficult role both as an organizational form (the creation of

[illegible] take as an example the Bulgarian Sugar PAO which included five industrial agrarian complexes which, in turn, include TKZS, DZS, branch farms, and [illegible] plants and factories. These different enterprises, combined within the "land-end product" cycle, have blended organically and technologically. At the same time, a considerable enhancement of the socialization of socialist property has been achieved, mainly of the land and basic productive capital of both sectors, as well as the production and labor processes. In this case the development of and rapprochement between the two forms of socialist ownership have been encompassed within a single organizational-managerial unit.

Cooperative property was converted into property of the whole people in the development of the Bulgarian Sugar PAO on the basis of Council of Ministers Letter No 40 of 1972, establishing it as a state economic organization. However, this was achieved not through its gradual rapprochement and integration but directly through the organization of industrial-agrarian trusts in accordance with that normative document. Despite this, it took years to accomplish the factual merger, rapprochement, and blending of the two forms of ownership through economic means and structuring as a single organism.

Economic ties and relations among individual units within the agroindustrial [illegible] in the Bulgarian Sugar PAO are still developing and advancing. Relations developing between these two units largely carry the marks of relations of property of the whole people which are still at the beginning of their formation.

Development and advancement of socialist ownership assumes new visible dimensions with the establishment of scientific-production trusts (NPO). Above all, the level of socialization of productive capital is enhanced in the areas of cooperative and state property. Within the NPO agricultural and industrial activities are in a state of close organic interaction [illegible] with science without intermediary organs and organizations.

[illegible] and relations developing within the framework of the "research-[illegible] cycle are close in nature and content to those achieved by the [illegible] associations even though they have some technical NPO [illegible]. The overall planning-economic and production activities [illegible] NPO are based on contractual ties and relations between scientific-production branches and units within the PAO, the so-called internal relations and ties, on the one hand, and contractual relations and ties between the NPO and its branches with other economic organs and organizations outside the NPO system, so-called external economic ties and relations, on the other.

Agroindustrial integration raises the level of socialization of socialist ownership in its cooperative form mainly but to a certain extent, in its state form as well. The higher level of socialization of state ownership under the conditions of agroindustrial integration is achieved mainly by combining technologically related activities and production lines within the "land-end product" chain.

The organizational-economic forms of agroindustrial integration lead to the reciprocal enrichment, rapprochement, and blending of the two forms of socialist ownership and to improvements of relations specifically expressed by these two forms. However, it is not the forms but the objective internal processes which develop within them that are the main and determining factors. In this case it is a question of relations which arise on the occasion of utilization of productive capital and the distribution of the produced and product in the individual integrated economic organizations. Such relations are relations of cooperation and mutual aid between producers of the two sectors of the national economy--state (industry, mainly) and the cooperative sector, i.e., relations between the two basic friendly classes within our society--the working class and the class of the cooperative farmers.

The development of socialist ownership and, above all, of cooperative ownership is accelerated by the establishment of the National Agroindustrial Complex and the creation of the National Agroindustrial Union. The systematic conversion of the entire reproduction process in agriculture, the food industry and agricultural machine building to an economic foundation, the conversion to new and more advanced forms of management of economic activities, the application of the economic approach and economic mechanism, and the development of a new type of brigades in the villages insure good prerequisites for the simultaneous development and improvement of the two forms of socialist ownership, their rapprochement and their gradual merger within a single socialist ownership of the whole people.

The establishment of the NAPK considerably raises the level of socialization of cooperative and state ownership. It intensifies the concentration of production, the land, manpower and basic productive capital. The NAPS includes not only cooperative but state economic organizations as well. It covers not only agricultural production but the entire processing industry. This is one of the basic factors in the development and advancement of both forms of socialist ownership.

Under the conditions of the NAPK and NAPS prerequisites are created for eliminating the economic division between the two production economic sectors and for their integration within a single planned entity.[5] Under such circumstances, the development and improvement of cooperative ownership may not be reduced merely to raising the level of its socialization as a purely quantitative process. They have yet another, exceptionally important manifestation. The new and more advanced organizational-economic forms such as OZ, APK, FAK, PAO, NPO, NPK, and others--create conditions for the industrialization of agricultural production and for bringing it closer to industry.

The BCP program points out that "the introduction of industrial methods in agricultural production and management and the intensification of the interaction between state and cooperative economic units will gradually lead to the development of the national economy as a single integrated national economic organism, and to unification in the areas of planning.

price setting, financing, crediting, production marketing conditions, income distribution, organization of wages and ties with the budget."6 This is largely achieved within the conditions of the NAPS and, particularly, with the application of the new economic approach. The implementation of such programmatic objectives leads to the "further interpenetration and mutual enrichment between state and cooperative ownership which will legitimately bring about their gradual merger as ownership by the whole people."7

Economic ties and relations among individual production units and producers (cooperative and state) within the NAPS are implemented on a qualitatively new basis. They are united within an organizational-production and management unit and operate on the basis of total cost accounting. The organizational-managerial structure of the NAPS is one of the factors for the involvement of socialist ownership in its two basic forms. The cohabitation of these forms positively affects the nature and organization of the production process, the means for the formation and distribution of income, and the entire system of economic ties and relations among individual economic organizations and their production units. The economic separation of cooperative ownership will be surmounted to an ever greater extent in the future within this complex system of economic relations and ties controlled by the NAPS. At the same time the state (nationwide) form of ownership as well will be developed further.

Without exaggerating the place and role of the NAPS as a more developed form of manifestation of agroindustrial integration at this stage in building a developed socialist society, in our view, it will create the most favorable conditions and prerequisites for directly surmounting the existing differences between state and cooperative ownership and for their development, rapprochement, merger, and formation in the near future of a single unified ownership by the whole people of productive capital in agriculture.

Under the conditions of the NAPS we have a factual "cohabitation" between the two forms of socialist ownership. This is specifically manifested in the establishment of single funds within the union, above all the Expansion and Technical Improvements, Economic Influence, and other funds. The formation of such funds and of the Wage and Social and Cultural Measures Funds is based on the contributions of the economic organizations which are members of the union and withholdings from their net income and from the activities of the economic organizations and enterprises under the NAPS Central Council.

Such accumulation of NAPS funds is, essentially, a basic prerequisite for rapprochement leading to the merger of the two forms of ownership. Relations expressing cooperative ownership are far more advanced under NAPS conditions. The single reproduction process which takes place within the NAPS essentially eliminates the barriers separating the cooperative from the state sector. The toiling cooperative farmers, most of whom work in

the APS, PAS, SPS, and others, develop relations not only with cooperative productive capital but with state capital as well. The agroindustrial chain is so structured that it is difficult to distinguish between the two sectors in the production process whose objective is one: the production of highly effective end commodities.

All this indicates that in terms of socialization cooperative ownership has come closer to state (nationwide) ownership. This is another manifestation of the major role and significance of agroindustrial integration and of the forms of its manifestation.

It would be erroneous and, to say the least, hasty to identify this process of rapprochement and merger between the two forms of socialist ownership, occurring within NAPS conditions, with a single ownership by the whole people. In the stage of building a developed socialist society it is through NAPS activities that the process of rapprochement and merger between cooperative and state (nationwide) ownership is achieved and, to a certain extent, in terms of its content and functions, NAPS ownership contains the features of ownership by the whole people. Under NAPS conditions socialist production relations in agriculture are largely expressed through ownership by the whole people, for cooperative ownership comes gradually closer to and merges with the ownership by the whole people through agroindustrial integration without having entirely voided its content.

For the present we are only at the beginning of this process. A higher level of socialization of cooperative ownership and of individual elements of its merger with ownership by the whole people has been achieved but is far from having the qualities of a single ownership by the whole people. This process will acquire an even more completed aspect with the organizational development of the second stage of the NAPS which will take over sectors and activities satisfying the needs of agricultural for machinery, equipment, chemical fertilizers, preparations, and others. This will make it possible to emphasize even further the leading role of the state (nationwide) form of ownership in agriculture.

The application of the new economic approach, the improved organization of labor and the development of modern type brigades in the countryside also create conditions for the acceleration of the process of rapprochement between the two forms of socialist ownership.

How will the new economic approach accelerate, more specifically, the reciprocal enrichment, rapprochement, and merger between the two forms of ownership?

The standardization of the principles and basic aspects and requirements of the new economic mechanism in agriculture and industry practically establishes far more favorable conditions for the reciprocal enrichment, rapprochement, and gradual merger between state and cooperative ownership forms. This largely eliminates the departmental approach and the specific

characteristics and conditions for the organization of the public production process and the formation and distribution of the wage fund. Funds, and procedures and means for their distribution within each of the two sectors have become standardized. Therefore, it would be no exaggeration to state that the objectives contained within the BCP program will be implemented through the activities of the state sector (industry) and the cooperative sector under the conditions of the new economic approach and mechanism, namely: "The continuing dialectical process of interpenetration and reciprocal enrichment will be taking place between the two forms. The participation of state ownership in the development and advancement of cooperative ownership and, conversely, of cooperative ownership in the development of state ownership, will be intensified. The forms of economic organization of public production in the state and cooperative sectors, production and management methods, income distribution, and level and forms of consumption, will become ever closer to each other."[8]

The systematic application of the requirements of the new economic approach and mechanism in agriculture and industry creates factual conditions for closing the "land-end product" cycle. This is guaranteed by the steady intensification and expansion of intersectorial ties between agriculture and industry and the ever more clearly manifested processes of agro-industrial integration. This leads to the organic linking between cooperative and industrial production and, respectively, of state and cooperative ownership within the framework of the agroindustrial integration underway, which covers all stages of the single reproduction process within the NAPS. The NAPS itself, as a new organizational-management and economic structure, creates, on the national level, most favorable conditions for the practical application of the new economic approach and mechanism and for intensifying the influence of economic levers and criteria in the production-economic activities of the corresponding economic enterprises and organizations within it.

The development of the new comprehensive type of brigade organization of labor in agriculture will provide the dialectical unity between the economic approach and the acceleration of scientific and technical progress, a scientific structure, optimum combination of factors with high production effectiveness, implementation of important social functions, and so on. Unquestionably, this will have a favorable effect on the rapprochement between the two forms of socialist ownership as well.

The process of development and improvement of the two forms of ownership and of their rapprochement and merger within a single socialist ownership by the whole people is complex and varied. A large number of factors and prerequisites are influencing and will continue to influence this complex dialectical process. However, the role and place of agroindustrial integration and its organizational-economic forms of manifestation are unquestionable as one of the basic factors for accelerating the development, improvement, and merger between cooperative and state socialist ownership.

FOOTNOTES

1. See T. Zhivkov, "Otcheten Doklad na TsK na BKP Pred Desetiya Kongres na BKP" [BCP Central Committee Accountability Report to the 10th BCP Congress], Partizdat, 1971, pp 189-191.

2. See the Model Statute of the Agroindustrial Complex, DV. No 25, 28 March 1980, p 276.

3. See I. Kostatinov, "Sotsialisticheskata Sobstvenost i Sotsialno-Klasovata Struktura v Usloviyata na NAPK" [Socialist Ownership and Socioclass Structure Under NAPK Conditions]. Partizdat, 1971, pp 57-90.

4. T. Zhivkov, "Izbr. Such." [Selected Works], Vol 23, p 585.

5. See I. I. Tereshkov, "Ekonomicheskiye Usloviya Obrazovaniya Obshchonarodnoy Kommunisticheskoy Sobstvennosti" [Economic Conditions for the Formation of Communist Ownership by the Whole People]. Minsk, 1973, p 204.

6. "Programa na BKP" [BCP Program]. Partizdat, 1971, p 59.

7. T. Zhivkov, "Agrarnata Politika na Partiyata--Kruvno Delo na Tseliya Narod" [The Party's Agrarian Policy--A Profound Cause of the Entire People]. Partizdat, 1979, p 18.

8. "Programa na BKP" [BCP Program]. Partizdat, 1971, pp 58-59.

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CSO: 2200

HIGHER PROFITABILITY IN INDUSTRY URGED

Sofia IKONOMICHESKI ZHIVOT in Bulgarian 3 Sep 80 p 2

[Article by Dafin Doynov: "For Higher Profitability!"]

[Text] Decree No 32 of the Council of Ministers, dated 12 June 1980, notes that "discipline in the implementation of the state plan task on the volume of net output, insuring the planned amount of profits and payments to the state budget has been lowered in some economic organizations."

The national income, which is of exceptional importance to the socioeconomic development of the country, has always been the focal point of attention of the party's economic policy. The successes achieved so far in this respect are among the most considerable achievements of socialism in the country. They insure the high growth rate in the economic, social and cultural areas of our society. In 1979 the national income reached the impressive figure of 17.4 billion leva . That is why the net output indicator is first among the mandatory indicators of the new economic mechanism for all material production sectors.

The national income consists of two components: the wage fond and profits. However, the way both components grow is not a matter of indifference to the socialist society, for their purposes are different and they play different roles in the development of the country.

The main purpose of socialism is to raise the income of the working people and systematically to enhance their living standard. The successes achieved by socialist Bulgaria in this respect are remarkable! In the past 20 years alone the real income rose by a factor of more than 1.7. The material base, way of life and spiritual sphere in which the people live are changing, and so are the characteristics of the population's reproduction.

Along with all this,however, it is of exceptional importance to improve the possibilities of the material and technical base of society at large, expand the reproduction process at a high pace, insure the proper development of the nonproduction area, provide the necessary assets for the public

funds, maintain the country's reserves and its defense capabilities, and so on. This can be accomplished only if profits grow at the necessary pace. This means that the national economy must be highly profitable. Should the national economy grow only in terms of wages, neglecting profits, wages will grow faster than social labor productivity. This phenomenon would be unnatural, for the basis for the expansion of reproduction would be narrowed and overall social development will stagnate, including the living standard of the people.

We know that the problems of profitability, which have never been neglected, have now achieved new dimensions under the conditions of the new economic approach.

The new party and government documents reemphasize the exceptionally important role of improving the socialist organization of labor, bearing in mind the comprehensively acting production factors. The assignment now is to review the normative base.

We know the potential reserves concealed in productive capital. The shift coefficient remains low. A number of machines and installations remain idle. New production capacities are being developed slowly. Construction is delayed and completion deadlines are extended. A tremendous volume of unfinished construction is piling up. What does this mean in the language of economics? It means a hopelessly frozen national income. That is why the government ordered the "inventory of all productive capital--machines, installations, buildings, and others, which remain unused and measures be taken for their full utilization, including transfering them to other economic organizations" (Council of Ministers Letter No 43). Measures have been ordered rapidly to reach planned capacity of new productive capital. Penalties are stipulated for delinquent managers whose wages could be lowered.

The economic utilization of raw materials, materials, energy, and fuels is a basic factor in upgrading profitability. The National Party Conference (1978) called for additional economies of 1.1 billion leva in material outlays. A number of labor collectives pledged to make their contribution to the successful implementation of this task. Currently endless reports are being submitted on the fulfillment and overfulfillment of the pledge. However, instead of economies, some collectives are reporting overexpenditures, thus reducing the overall positive result.

Great attention should also be paid to the full utilization of manpower. Considerable time is still being wasted in periodical or full-day idling. There is a broad field for the application of new equipment and technology and for the mechanization of manual labor. Labor norms must be subjected to a basic review. It is neither natural nor admissible for labor norms to be highly overfulfilled without a growth of social labor productivity. That is why it was ordered that norms be issued for the maximum average meeting of labor norms by individual ministries and departments.

The new economic approach and the new economic mechanism require a new organization of production, labor, and management. The new type brigade, organized on a self-financing basis, will have to resolve the basic problem of economic development: increasing several fold social productivity. This means that all material production sectors will have to work on a highly profitable basis. All production reserves must be discovered and used with the help of normative production costs, including that of brigades. This is a basic factor in increasing profits. However, it is not exclusive.

The maximum loading of production capacities and the rational utilization of coal and other materials, including secondary raw materials, will help to increase the volume of output. Society will thus obtain additional material goods and additional profits. A strict analysis of the structure of items produced is necessary. Useful to the national economy are highly profitable goods in demand. Good quality is also very important. Along with consumer benefits it brings higher profits through higher prices. This too is a factor in increasing profitability.

The new economic mechanism offers the full possibility for combining the interests of the working people with those of society. A better employment of productive capital, materials, and labor, and a higher quality of goods are equally useful in terms of the income of labor collectives and the state. This must be accomplished by a general growth of both components of the national income. Wage increases without a corresponding profit increase mean anarchy. The further fate and development of society depend on what it sets aside for its future. That is why severe penalties will be imposed on managers who ignore such basic principles and allow the nonfulfillment of profit and turnover task plans. The amount of individual wages of leading cadres and leading specialists in economic organizations and branches will be made directly dependent on the implementation of the mandatory profit and turnover task assignments.

The imperative of increasing profits and achieving higher profitability in all national economic sectors is an imperative for new successes in the future economic development of the country and for the steady climb of the living standard of the people.

5003
CSO: 2200

NEW ALUMINUM PLANT, OUTPUT DESCRIBED

Sofia ZEMEDELSKO ZNAME in Bulgarian 6 Sep 80 pp 1, 3

[Article by Radoslav Gulubarov: "With the Breath of Shining Aluminum"]

[Text] It is hardly likely to come across Geno Tsonev, director of the Economic Combine for Aluminum Processing near Shumen even in the morning hours. He is a man in front of whose eyes the first hole was dug and for whom, as of that day, every subsequent day has been filled with thinking, concern, and responsibility for everything and everyone in the combine. This industrial agglomeration, the biggest and most unique not only in the Balkans but in Europe, in terms of completion of technological cycles for the processing of aluminum, is throbbing in its pre-start up rhythm. The combine will be inaugurated on 5 November 1980, on Metallurgical Worker's Day.

...The sun streams through the glass roofs into the vast crevices in which the human voice is lost in the din of the metal and the bluish vapor over the long bodies of the presses. Young people are standing in front of control panels. Fans are spreading the breath of oil and hot aluminum. Bulgarian and Russian speech are heard. Integration? In this place it is so clear as to be tangible....

Friendship Labor Shifts

18 August 1977: The first aluminum shaped part is produced by the first installed Soviet 1,250 ton press;

7 November 1978: after thousands of tons of Soviet equipment and automatic systems have been installed, the press shop, the equivalent of an entire plant, is commissioned;

16 September 1979: the first "friendship smelt" has come out of the new furnace of the technological line for semicontinuous casting;

19 April 1980: the installation of a second blast furnace and line have been completed in honor of the 110th anniversary of Lenin's birth, thus completing the installation of the Soviet equipment.

"Come on, boys!" In manly competition, the labor day here lasts 24 hours....

The history of the building of the combine is traced through the results of the "Friendship" socialist competition which began with the installation of the first Soviet machines. The results are found in the economic indicators and in the endless hours spent in front of presses and furnaces enabling the Bulgarian young people to master the knowledge not found in any textbook, described as skill and love and responsibility for one's profession.

There was more than mere knowledge to be shared. Whenever the situation would become tense--which frequently happened as the building and assembling went on--the Soviet people were the first to stand behind the machines, and not budge until the daily norm was covered 150 percent. One felt ashamed to fall back. One would be urged on by the tired eyes of Boris Korgin, Veneamin Yerokhov, Vladimir Trapeznikov and Nikolay Sobolyuk, of those Russian people with already graying hair, who, after voluntary Saturday work, on Sunday would go together with their wives to help villagers harvest the grapes or construction workers in Shumen building anniversary projects.

Currently, many traditions are being developed in the combine, traditions which will be taken up by the young.

Here, occasions to celebrate are frequent, but perhaps the most touching was the following:

"Metallurgical Workers! These graduates are now in your hands. We gave them knowledge and you must teach them to be worthy of this profession!"

Eighty boys and girls from the machine technical school and the V. Yovchev Secondary Vocational Technical School in Shumen are presented with their diplomas and, with them, their appointment orders....

"Even though this was risky, it was unavoidable," says Khristo Khristov, deputy chief of the press shop. "Metaphorically speaking, we had to learn to swim in the current and plunge straight into deep waters. We learned to surmount failures and enjoy victories. Mastering the production of any new item is a victory!"

The combine is already producing 700 different types of shapes, an entire range of pipes from 10 to 100 mm in diameter, over 70 percent of standardized construction parts, and rolled metal sheets from 100 to 50 microns thick. In other words, this means hundreds of thousands of leva in foreign currency saved by the state.

"The first steps leading to great creativity," Comrade Khristov goes on to say, "also belong to the young. The simple replacement of copper inductors with aluminum inductors in the induction furnaces, suggested and applied by Encho Velikov and engineers Mikhail Nikolov and Vitan Stoichkov, saved the combine 1'0,000 leva.'

Either because of modesty or something else, Khristo Khristov does not mention that, together with engineers Ivan Kostadinov and Bozhana Nedyalkova and molder Stoyan Girgorov, he has developed complex ribbed parts meeting world standards. They will be used to make the searchlights for the house-monument on Buzludzha and the National Palace of Culture. To mention another figure, this represents a saving of 100,000 leva in foreign exchange.

Everyone in the casting shop has faced the old professional saying that continuous casting means continuous concern.

How does one become accustomed to the fact that out of the huge machine man must "extract microns" without holes or rough spots today, tomorrow, 24 hours daily, every week, every month, uninterruptedly....Most people lack this traditional feel for production continuity and the requirements of discipline and quality....

Let Us Compute Now!

"You may think that jar lids or the foil covering milk bottles are petty matters in a combine such as ours."

I am talking with Petur Georgiev, the young deputy chief director.

"You are always looking for big items....Well, here they are: We produced the first 100 tons of Omniya type sheets for lids. One ton costs over 2,400 leva in foreign exchange. Subtract from this 1,500 for the metal and then compute 1,000 times 100. Do you know how long it took us to learn how to make such lids? It took us a few months only, whereas in other countries it takes from two and a half to four years. We are currently increasing the output so that by the end of the year, as a result of the ahead of schedule mastering of the technology, our net economic savings will be about 750,000 foreign exchange leva. We shall do it! As to what went on so far, this is already history!...Could you imagine what it takes to maintain four rotating shifts, what it means to try out several technological suggestions subsequently rejected by practical experience.... Finally, we were able to resolve the problem ourselves."

Our conversation turns to blueprints, folds and catalogues, filled with "petty items" which cost the state millions of leva in foreign currency--molds, containers for semifinished products, utensils, aluminum foil.... they are included in the immediate plans! The chemical, food and pharmaceutical industries will be supplied with Bulgarian made foil of from 100 to 50 microns, so badly needed. And, in case I am still "seeking" big items, engineer Georgiev could "offer me" the following:

"In the shock phase preceding the 12th BCP Congress, the metallurgical workers have decided to complete the first 100-ton test of the aluminum sectors for the cables plant in Burgas. Annual savings from processing

outlays alone will amount to 300,000-400,000 foreign currency leva. The shop for anodizing over 500 different aluminum goods and the shop for aluminum window frames with a capacity for 150,000 square meters per year will be commissioned.

"We are discussing dozens of different types of items (dozens of types of items having the management of the combine as a possible production variety. This is not only possible but necessary! What items to choose? Briefly stated, the profitable ones!

"Let us take this small aluminum part, eight mm in diameter and a wall thickness of five mm. It is expensive and it is important. It replaces automobile radiators and its use is rapidly spreading throughout the world. Mastering its production means producing it by the millions. It means big orders and huge profits. However, we must begin first with a reconstruction.... There are those who may say that even before the combine has been commissioned they are thinking of reconstruction! Life, however, is faster than plans! This may be a contradiction but it is precisely this which promotes progress.

"Through a program for reconstruction, modernization, and intellectualization of output, by 1990 the combine will be able to process over 100,000 tons of aluminum per year and save over 17 ½ million foreign exchange leva."

Here is a partial breakdown of these figures.

In the next few years the combine will effectively enter the international trade in aluminum items and will satisfy virtually all national requirements.

The adding of a single additional process to the already constructed shop for window and door frames will result in the production of thousands of square meters of insulated aluminum frames--an item with a practically unlimited international market.

Following the completion of the rolled sheets shop the mass production will be undertaken of the exceptionally complex magnetic discs always needed by the electronic industry.

All this (not to mention many other facts and items!) means new possibilities in shipbuilding, instrument manufacturing, automation, electrical medical apparatus, and in the pharmaceutical and construction industries.... It means new possibilities for industrial Bulgaria, as a result of the toil of 2,500 engineers and workers handling machines and equipment worth over 70 million leva, with 80,000 leva average annual productivity per worker.

...I spent the entire day trying to locate the director, engineer Geno Tsonev and was able to find him only toward 7 p.m., after he had spent 12 hours in the combine! There was a knock at the door, and engineer Tsonev had to resolve a housing problem of a worker, deal with the mail, and so on.

It was after that that we started the long story of that first day at the combine, when this area was covered by cornfields, a conversation of the many days which passed since and the many days lying ahead...

9003
CSO: 2200

VNJ DIRECTORS DISCUSS COMPREHENSIVE EXPERIMENT RESULTS

Prague HOSPODARSKE NOVINY in Czech 22 Aug 80 pp 8-9

[Interview conducted by Pavel Karel and Jaroslav Pesta: "The Finish before the Start: Concerning Experiences Gained from the Implementation of the Comprehensive Experiment and Preparations for the Practical Application of the Set of Measures"]

[Text] At the end of 1977, 12 fields were chosen by a resolution of the federal government for the implementation of a comprehensive experiment, the basis of which is the achievement of greater efficiency through an improvement in the quality of all types of work. In July 1978 we met with four general directors from the CSR consumer goods and chemical industries and printed their initial experiences from the application of this experiment in HOSPODARSKE NOVINY, number 30/1978, under the title of "Task Force Amid Question Marks." Now after 2 years we have met again with roughly the same group. Only Alois Tomsu was missing, having just completed in the middle of this year his long years of successful activity as the general director of the knitting industry. Participating in the discussion were the deputy minister of industry of the CSR, Engr Leopold Blatak; the general director of the woolens industry, Frantisek Hrabec; Doctor Engr Rudolf Malat from the Bohemian rubber and plastics factories, and Engr Stanislav Endler from the leather goods industry.

Principles Have Exerted Positive Influence

[Question] Returning to our discussion of 2 years ago, we agreed at its conclusion that to experience the full impact of the comprehensive experiment, to get it into one's blood, is a matter of an extended time period. What is the situation in this regard today?

Hrabec: After more than 2 years of experience we can state that the success of the comprehensive experiment depends on our ability to lead or motivate people, our ability to establish goals for them and to show the way to the achievement of those goals. On the other hand, success depends on our ability to educate people to work in this manner. In particular it is necessary to emphasize the role of organizational work,

because it is not difficult to find some path to improvement, it is not even difficult to point out or specify this path, because there are enough findings and experience for this; it is difficult to assemble the necessary number of people in such a way that one complements the other, so that they strive as a collective to achieve the established goal. This is where the role of organizational work steps to the forefront. Unfortunately we underestimate this work too often, and precisely for this reason we are also at times disappointed with results. At the same time the crux of the whole matter rests in this subtle work, in personal example, in the ability to coerce or cajole people to undertake a specific direction and to give it a little bit of themselves, which is to say, that they express their initiative, the desire to do something. Knowledge is not enough, one must also understand the mentality of people, their way of thinking, their ideas, their opinions, and from this then find a way to form a collective, to begin the battle for the achievement of the established goal. We are, I think, in the middle of this whole issue. It is possible to say that we are succeeding at certain things, but at the same time we are still at the beginning with other things, and these will require still a great deal of effort. We must concern ourselves much more profoundly with work psychology. My impression is that in the overall efforts to achieve greater efficiency this aspect has been slightly in the background, that we have forgotten about it. This is connected, understandably, to professional preparation and everything else.

Engler: I do not exaggerate when I say that we have succeeded, throughout the whole economic production unit, and in all factories and enterprises, in mastering the regulations of the comprehensive management experiment in the way in which they were included in the framework regulations and in the way we had elaborated them beginning in 1978. I think that all the new concepts are clear to all the managers, and that they are aware of the more than 30 deviations which are in force in the experiment in a slightly different form than in the general management regulations until the end of 1980.

On the basis of experience we can state that the principles of economic management in the comprehensive experiment had a positive effect. Above all, qualitative indicators were better fulfilled than quantitative indicators, better profit results were achieved, as well as a better return on operating assets or in labor values added than, for instance, in gross production and in the production of goods. Also, the relation of labor productivity and average wages is much more positive, especially given the measurement of productivity in terms of values added. However, this positive evaluation of the achieved results does not mean that all developments were positive, that we did not have problems, or that we did not have to solve matters which were outside the effective realm of the regulations of the comprehensive experiment. I have now in mind in particular the question connected with the physical interconnectedness of the plan, with the attempt to maximize, without surpluses, inputs for the assigned outputs of the whole economic production unit and for each of our

enterprises. This means that the whole economic production unit and every enterprise would have the essential amounts and value of materials to guarantee the production of those products specified by the plan.

Problems arose especially because the rate of growth of prices of imported raw materials was greater than we were successful in incorporating into exported products. This is not, however, a uniquely Czechoslovak problem. It is generally known that the increase in prices of finished products lags behind the price of raw materials. In the final analysis it is not only an issue of the contemporary period, but is known as well from the past and clearly will not change even in the future.

We have succeeded--and I consider this a positive phenomenon--in significantly increasing the efficiency of foreign exchange. Prices quoted as "all charges paid" in our area rose more rapidly than wholesale prices, and on top of this we successfully toned down for the most part the impact of the missing elements which would have further improved our own foreign trade efficiency.

Macak: Our experiences with the verification of the comprehensive experiment show that the application of new management instruments has an undoubted influence on an increase in the efficiency of the whole production process, not only in a given year, but also from a longer term view. This was reflected in practical terms in the acceptance of higher objectives for the years 1978-1980 in the return on operating assets and in values added. This was evidenced also in an initial, and in my view very important, contribution in the increase in the activity of collectives, management collectives, but also of technical employees, and, last but not least, production workers.

People's thinking is gradually changing in the direction of an application and utilization of intensive growth factors. I use the word gradually intentionally because a change in people's thinking cannot be achieved by tearing a sheet from a calendar, by a termination order, or by any such means. Therefore, I consider increased activity and changes in people's patterns of thought to be the main contribution of and experience gained from the application of the experiment, especially with a view to future development. From this it follows that performances in coming years will depend on the degree of success in not only maintaining this activity, but in developing and deepening it still further.

The experiment, by means of certain new instruments, by emphasizing their objectives and also specific connections, created sufficient space, at least during this time period, for management and technical personnel, and for whole collectives of workers, to be able to develop initiative and apply their abilities and experiences. On the other hand, it created an invitation for those who would wish to continue longer in the old ways, who do not happily accommodate themselves to innovation. Innovational activity of workers at enterprise units for technical development,

comprehensive socialist rationalization, and research institutes increased, as did that of socialist work brigades and comprehensive rationalization brigades for the lowering of consumption of materials and the elimination of a shortage of several products supplied for domestic commerce, etc. The balance improved in the filling of supplemental investments in connection with 3 years of knowledge of resources creation in development funds.

For practical purposes, all organizations comprehended gradually that the experiment is being realized in the economic production unit as a whole, that the performance of every enterprise can contribute to economic production unit performance and vice versa, that the resources which are created are then dependent not only on the performance of the enterprises, but also on overall performance of the economic production unit.

Accountability Not Commensurate with Responsibility

[Question] Comrade Blatak, who was the general director of the leather goods industry 2 years ago, spoke then about the problem of economic production unit activity and the connnection of these units to foreign trade. What is your view of the current situation, what have we succeeded in improving in this sphere, and what remains to be done?

Blatak: First off, all the economic production units in our sector fulfilled their targets last year, especially in exports to the two main territories. And the experimenting economic production units, above all, influenced this performance. Nevertheless, the situation in which our economic production units operate is extremely difficult. There can be an improvement in this only when such new elementary principles are in force which will lead in their consequences to a fundamental order. I am of the opinion that it is absolutely necessary to find a way to outfit every worker with accountability commensurate with his responsibility. And furthermore, it is necessary to have at our disposition all factors of production in amounts corresponding to actually verified output, technological and materials norms, etc.

This applies, of course, above all to products which are socially required, efficient in all respects, and on a solid European level in all ways. Even a representative of such an organization, however, can often run into problems in supplier-consumer relations. For instance, in view of the well-known lack of foreign currency resources, it is not possible in my view to argue only the technical view of the necessity to replace obsolete machines and equipment. In the same way it is simply impossible in the current situation to obtain the required work force composition by natural selection. But insofar as we are discussing the most basic things, those which must always exist, then these are: well organized work, flawless standards, a well-worked-out system of intraenterprise management, successful technical development, and comprehensive socialist rationalization. We must consider negative examples of these as serious errors. I believe that an improved system can contribute to the positive resolution of this situation.

A second group of problems related to this question, even if indirectly, is the extreme material intensiveness of our production. Every national economic structure should arise with a view to natural conditions and constantly adjust to them. It definitely does not help to state repeatedly that our country is poor in raw materials as long as we do not come to the relevant conclusions from this. I think that the makeup of our industry at this time already does not correspond to effective material resources utilization. It is a matter, for instance, of whether we can permit ourselves in any form the current huge consumption of electrical energy, and whether it is not high time to do more than think about what will happen when we extract the last ton of coal, and practically to begin the preparation of structural changes in our industry, which had been adapted to raw material wealth.

And, finally, a third group of problems connected with this theme: we are devoting very little attention to resource recycling. It is simpler for everyone to place demands on imports than to think about replacement sources from salvaged resources, from the outputs of technical development, that is to research the question of whether or not resources exist which this country could provide considering its existing natural and weather conditions. There certainly do exist in Czechoslovakia huge expanses of devastated fields, whole areas suited to the development of cattle husbandry, sheep herding, etc., and which could contribute a source of raw materials which otherwise we import very expensively from nonsocialist countries. I also think that we would derive more use value from a number of materials if we would devote more expert attention to their processing. Therefore I see the great advantage of the improved system in the fact that it does not prefer economic indicators which completely overlook the fact that we must devote exceedingly great attention during the production process to those sources of raw materials which are at our disposal.

Rules of the Game Must Be Upheld

[Question] The comprehensive experiment is, to be sure, nearing its finish, and the Set of Measures is literally about to start. This is, then, a slightly unique time, and therefore, what is likely to be the path to an understanding of the new principles at specific levels of management?

Brabec: Complicated, without doubt! It would be a little presumptuous to imagine that every worker would comprehend the whole complex of issues which are in the Set of Measures. The lower one goes on the management ladder, the more concrete and understandable must be formulation of thoughts. And this is precisely the case of management personnel at individual levels. I must have a totally different perspective, as director of an enterprise, from my deputy, the plant manager, the production manager, the workshop foreman, the master worker, etc.

The Set of Measures is extremely demanding in its internal relationships. We are constantly running into situations in which personnel, even at the highest management levels, are not fully familiar with the issues, and are beginning their decisionmaking in the old ways. They are not taking into consideration the new elements in the principles. This is, however, a matter of time, these principles, just as those of the comprehensive experiment, must get into the blood. As long as it is not in one's blood, or done semiautomatically, until that time problems will remain in that we will regress in our thinking, and particularly in our decisionmaking, to earlier times, in that we will form our opinions according to some of yesterday's preconceptions.

Life changes, however, in a significant way. For instance, there is the question of gross industrial production and outputs. Today outputs are in the forefront, yesterday it was gross industrial production. The two are connected: even when outputs are planned, we have to get to gross industrial production or the production of goods, so that we can plan sales. It is a matter, however, of thinking about yesterday's approaches to gross industrial production and the approaches today to the volume of outputs. Gross industrial production was often set yesterday to be met at any cost. It was necessary to increase it, and this caused demands for more expensive material and greater amounts. The labor value added was relatively small, because a large amount of waste existed in the output. Today there is an attempt to change, as much as possible, losses in labor value added into value, into material, and thus to increase the production volume. In no way, then, is this to be done through increasing consumption of materials, but by increased efficiency based on the better utilization of labor.

Endler: Nor can I answer this question in any way other than to say: The way is long and complicated, but it is possible. And precisely for that reason we should all be in a big hurry to familiarize ourselves with the regulations as profoundly and completely as possible. Certainly more preparation for the introduction of an improved management method is much better and more systematic than was capable of being assured for the introduction of the comprehensive experiment. Then we obtained the first framework regulations at the end of 1977, and by the beginning of 1978 we already had to implement the experiment. And this year? The regulations were published in March, and before the end of the year the whole economic sphere will have time to become familiar with them, to study them in detail, and therefore apply them much better. Nevertheless I think that it is still not too long a time. Certainly, as Comrade Brabec has just stated, managerial personnel at differing levels of management must know the regulations in differing ways. For instance, the management of an economic production unit must know them comprehensively, while this is not necessary for the master in his workshop. He must know the rules of intra-enterprise khozraschet and be able to apply them practically in the workshop. For us it is a question of every manager knowing how he must behave in the conditions of the improved system in the management of his own

sector, no matter how small, that he mesh harmoniously with the whole, and that on the basis of his performance the factory, enterprise, and finally the economic production unit can fulfill their objectives economically, effectively and in a quality manner. And clearly a certain amount of time is necessary for this, you cannot just do it on the spot. For this reason I am apprehensive concerning the slightly longer road. For instance, the whole first year was necessary for the full understanding of the principles of the comprehensive experiment. And we are still far from being able to say that we are 100 percent satisfied with the current situation in all enterprises and factories.

It is not easy to create the proper conditions in a place such as a workshop. There is the problem, for instance, of integrating one principle of the comprehensive experiment, which is also integrated into the improved system of planned management, namely a long-run orientation, into practice. Under our conditions this is really very complicated, especially if we consider that 50 percent of the final output of our economic production unit is for export, 3/4 of which is for capitalist countries. And one cannot plan exports there with 100 percent certainty. We have to integrate individual orders into the unified production plan. So even though we are already applying the comprehensive experiment for the third year, we will still not be able to get along, particularly in our assembly rooms from which products go to export, without a number of changes. But we must carry out even these changes in such a way that the work rhythm will not be interrupted at all, or as little as possible.

Blatak: No less important a factor is the way the improved system will penetrate into the supraenterprise organizations; here I have in mind the question of upholding the rules of the game, or the rules of plan methodology. These regulations must be enforced! The minute they are not adhered to a lack of trust arises and with it the evisceration of the whole effort. We remember very well 1953 when the currently valid principles of the management system were introduced. A brochure was published which contained all the regulations, the relationships, the responsibilities of individual levels of management, and that was it. There was nothing to discuss.

Also, when I worked in an economic production unit and we were implementing the first experiment, the so-called Czech experiment (the profitability of invested resources), specific regulations were announced in the area of investment. When we created resources for ourselves, we could do something with small-scale investments, modernize, but according to the regulations someone should have imposed a limit on this. And no one was capable of this. So clearly all trust in the experiment was lost. Which means--the success of the whole management method depends on the extent to which both sides take seriously the rules which have been announced and approved.

Plan Is Fundamental Instrument

[Question] Where, and in what area to you see the rockiest going for the Set of Measures?

Macak: We have had no illusions from the beginning that the verification of the comprehensive experiment would bring any advantages. Quite the opposite. We counted on there being difficulties in supplier-user relationships stemming from a certain disproportion and tautness in several areas, but also from inconsistencies and plan interrelationships. We of course had not counted on the situation which arose at the beginning of last year and which had an unfavorable consequence for all areas and activities. Insofar as we succeeded in eliminating--rather, minimizing--negative influences, this is evidence that we have derived benefits from the stepped-up activity of people. We fulfilled all volumetric indicators of production, even though understandably labor value added and return on operating assets increased more rapidly than did gross industrial production, and within the latter labor productivity from labor value added grew more rapidly than did productivity from gross production.

From what I have just said, it could follow that everything is in the best of shape in our enterprise sphere. This is not so, and we are aware of shortcomings and problems. We still have unused capacity for increasing the quality of intraenterprise management, in the application of khozraschet at work places. There are still things to improve in the general management system, as well as in specific activities. On the other hand, it is necessary to state openly that not even the most internally perfected system of intraenterprise management can resolve the basic disproportion in the national economy, a disproportion grounded in the plan, and shortcomings of the higher management levels. We must be aware of this and create conditions commensurate with the work of the enterprise sphere.

The most significant aspect of the battle with the current management principles must be considered the attempt to strengthen significantly in the course of 3 years the plan for economic production units in several areas related to the failure to adhere to the principles of tolerance, long-range outlook, comprehensiveness, and interconnectedness. If we prove unsuccessful in finding a compromise in this conflict, then this attempt will have sustained major damage in people's thinking. Simply put, it is quite certain that several enterprise collectives and individuals would cease to believe in the established principles and guidelines.

Hrabec: If we are to insert these principles all the way into intraenterprise management, if we are to apply them in khozraschet management, then we must develop a good, internally integrated and balanced plan. Here I do not have in mind a slack plan. Quite the contrary, it should be progressive, but it must stem from the conditions, from the level of knowledge, the unused capacities, the needs of the society. To require the fulfillment of a plan which is not already covered by something or other in a workshop is impossible. The master and others must have at their disposition those things which they need for the performance of one or another procedure. This can be, for example, an absolutely accurate standard, but it must be respected. We are, however, often in the situation where we do not begin in this way, for some reason or another.

If we wish to improve overall management, we must in the first place begin with the plan as the basic instrument which not only leads, directs and motivates, but which is also then the standard for the evaluation of the level of activity, of compensation, etc. If then we do not want to have contradictions, then let us make efforts to work out the plan precisely, as the basic requirement for additional forward movement.

We are trying to do this. We know that it is not simple, because new considerations constantly crop up, the situation changes, but this requires primarily reaction time. For the most part, however, the reaction is delayed, the decision about how to resolve the consequences of a particular situation comes too late, and because of this there arises an unnecessarily long period of nervousness and a clear uncertainty, which always threatens management.

Endler: I agree with Comrade Brabec. The production plan will undoubtedly have special significance in the improved system of planned management, because this is the first time that the planning of net production in the form of labor value added has been introduced for the whole national economy. This has already been defined in the methodological guidelines. And the planning of adjusted labor value added, meaning of modified labor values added, which will serve to regulate wage development, will undoubtedly be made more precise with enough lead time so that the whole production sphere can make preparations.

At the same time it is also important to us to make it possible to produce from cheap raw materials products of high quality and competitive price, so that the relationship in this price between materials costs and processing costs, mainly wage costs, will change and, last but not least, so that there will be a better evaluation than to date of the foreign currency costs, however indirect, which are contained in the products.

Biatak: We often prepare plans which consciously contain a number of risky areas. Those which are connected with the activity of economic production units must be solved by that economic production unit. To a significant extent, it must be able to solve as well the problems of consequences which arise on foreign markets. But what it is not capable of resolving, and even cannot resolve, are the problems which arise outside of the framework of its area of influence. Take, for instance, the case when situations arise on foreign markets which have as their consequence that the economic production unit will not receive for its use material resources which have been accounted for. This then creates a task for the central agencies, who must answer the question of what to do in this situation. This means that they must be able to answer, what is to be done with the outputs. Are they absolutely essential? If yes, then resources must be obtained from other areas. We cannot, however, in such critical situations, come up against a situation in which the problem remains unsolved for a long time, or only resolved half way.

People Decide Success

[Question] The experiment has brought you more than a few findings, lessons, and qualitative changes. Which of these will find the greatest application in the near future?

Brabec: We can confirm what we stated 2 years ago, that the success of the comprehensive experiment is dependent on our ability to mobilize unused capacity and to get people interested. And this principle still applies. The improved system demands much more knowledge, consistency and responsibility in work. We have learned that the manager who succeeds in directing his work in the sense of these principles also gains in authority, that he is more successful in asserting his ideas, that he really becomes a "leading worker" in the true sense of the word.

Again I return to the fact that the comprehensive experiment and the improved system involves working with people. They have many faces, and many different metamorphoses. And because at the present time we are experiencing frequent and often even unpleasant metamorphoses, the ability to actualize findings in relation to the new level of knowledge, to new problems, the ability to extend them immediately and to react to them rapidly is one of the positive findings.

Current results confirm that people are malleable, that they are open to new ideas and are willing to share not only in work, but also in risk. The more or less spontaneous development of several activities, as for instance the development of the rationalization movement or work rationalization, which always has come up against a number of problems, shows that people understood that when they do more, or when the volume of labor value added increases, they have the right or the claim on higher compensation. I think that matters have led to something of a positive division of labor. On the one hand the leadership is asserting an increase in the overall level and thereby in efficiency as well, and on the other hand the people understand this, and show their understanding by simultaneously creating the conditions for greater material interest. We are uniting, then, the interest of the individual and the group with the interest of society. This is something of a qualitative change in management processes, in the relations between the managing personnel and the managed. And it is necessary to note in this quality the basis for additional raising of the quality and progressiveness of all work.

9276
CSO: 2400

INCREASED INNER-GERMAN TRADE RESULT OF HIGHER ENERGY COSTS

Bonn DIE WELT in German 22 Aug 80 p 4

[Article by H.-J Mahnke: "Inner-German Trade Owes Its Increase to Energy Prices; Before the Schmidt/Honecker Meeting: 'How Productive Is the GDR?'"]

[Text] Otto Wolff von Amerongen, president of the German Association of Industry and Commerce (DIHT), recently surprised a portion of the approximately 6,000 enterprises participating in inner-German trade: he called the interest-free overdraft credit (swing) granted by the FRG to the "GDR" simply a relic of the fifties which, in view of the development of "GDR" foreign trade, is now dispensable: "In the trade relations between two countries, a credit regulation of this kind is certainly not the most modern instrument."

It is a fact that "swing" is as old as inner-German trade, whose contractual basis is still the Berlin Agreement of 20 September 1951, in which Berlin is fully included. In its new form of 16 August 1960, the agreement still regulates today trade relations that have strictly bilateral directions. Accounting of all purchases and sales is done through central accounts with the German Bundesbank in Frankfurt and the "GDR" Staatsbank in East Berlin. From the beginning it was agreed that 1 West mark would be equal to 1 East mark as accounting units. Because the flow of goods was not always balanced, both banks allowed themselves interest-free overdraft credit. This "swing" was raised repeatedly. In 1968 it was even made automatic to the extent that it could amount to up to 25 percent of "GDR" production in any given previous year. In 1974, an upper limit of DM 850 million was imposed and this regulation will be in effect until 1981.

According to agreements, negotiations on the "future structure and reduction of 'swing'" should have been held "by the middle of 1980," but nothing has happened so far--in view of the Bundestag elections, as everybody assumes. And in the "GDR" too, there is little interest in any changes. For any upward revision the GDR would have to pay a considerable price, Bonn thinks.

Otto Wolff von Amerongen is even considering a gradual reduction. Considering a trade volume which the DIHT president estimates to be 11 billion marks

for this year, the question of whether a promotive instrument like "swing" is still timely is certainly justified.

However, the advantage of "swing" for the GDR is considerable. Since 1975, its average use has amounted to DM 700 million. Interest savings--depending on the international capital market--amounted to between DM 60 and 70 million a year, at an interest rate between 8 and 10 percent.

Total indebtedness of the GDR to the FRG amounted to DM 3.65 billion by the middle of this year. Four-fifths of this sum was made up of commercial, especially supply credits. At the end of 1979, indebtedness stood at only 3.91 billion. Reason for the reduction: compared with figures for the same time in 1979, the GDR was able to raise its shipments by 38.4 percent to DM 2.987 billion in the first half of 1980. Because its imports rose "only" by 30.1 percent to DM 2.714 billion, the GDR surplus rose from DM 72 to 273 million.

However, the GDR has considerably higher sources of income which are not included in this accounting. The GDR receives hard DM currency, amounting to a total of more than DM 2 billion annually, through transfer payments (lump sum payments for transit, traffic agreement), from tourist traffic (visa fees, minimum currency exchange) and from commercial transactions (Intershop, Intertank). These earning have so far been used only occasionally, and then only to a small extent, to repay GDR debts to the FRG. GDR indebtedness in the West is given as $8.05 billion (approximately DM 14.4 billion).

The reason that, since last year, the "GDR" has again been pushing the trade with the FRG especially is, according to experts, not based on the advantages enjoyed by the "GDR" through the inner-German trade. These advantages existed before: in the FRG, the GDR is treated like an EC member. There are no duties for commercial goods and no skim-offs for agricultural products.

However, "GDR" shipments of agricultural products, as well as commercial products, have not been fully liberalized. There are quotas, especially for textiles and clothing. These quotas have not been raised in the past 2 years because the "GDR" misused inner-German trade for bypass imports.

The "GDR" also receives privileged treatment through a special regulation in regard to surplus value taxes. FRG shipments are, as a rule, taxed with 6 percent, exports into other countries are covered by credit. In the FRG, buyers of "GDR" goods can claim a pretax deduction of 11 percent, and there is no import tax. It is not possible to give the exact quantity of these privileges.

The increase in inner-German trade this year is based primarily on the price explosion for raw materials. At last year's Leipzig Fair it was agreed that for 6 years the FRG should sell crude oil and coal to the GDR which, in turn, would supply, while using additional quantities of oil from

the Soviet Union, petroleum products, especially for West Berlin. Half of the increase of "GDR" sales, amounting to DM 829 million, is due to price increases for these products.

Otto Wolff von Amerongen considers the development in inner-German trade over the past 18 months as pleasing: "We are on the road toward normalization." But on the other hand he believes that inner-German trade does not correspond to the state of the national economies of the two countries. The range of selections from the "GDR" is insufficient, quality is often not satisfactory.

Another "sore point" is the compensation demand, the simple barter trade of goods for goods. This practice causes considerable problems from smaller and medium-size firms who set the pace for inner-German trade. With this practice the GDR thinks it can sell its goods and still preserve its foreign currency reserves. For it depends on Western technology imports if its economy is to continue to grow.

And all this in spite of the fact that 70 percent of the GDR foreign trade is directed toward the East bloc. Only one-fourth is conducted with Western industrial countries, and one-third of that within the inner-German trade. In relation to the total FRG export, inner-German trade amounts to barely 1.5 percent.

Balance of the Past Two Years

Development Of 1979 Inner-German Trade in

Comparison To Previous Year:

Shipments to the "GDR" (in accounting unit millions):

1978	1979	1978/79 (in percent)
4,754.4	5,092.8	plus 7.1

Imports from the GDR (in accounting unit millions):

1978	1979	1978/79 (in percent)
4,066.3	4,791.8	plus 17.8

Total Trade Volume (in accounting unit millions):

1978	1979	1978/79 (in percent)
8,820.7	9,884.6	plus 12.1

Source: Federal Ministry of Commerce

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NATIONAL AGRICULTURAL ASSOCIATION WEIGHS COMPETITIVENESS

Food Industry

Budapest MAGYAR MEZOGAZDASAG in Hungarian No 36, 1980 pp 3-4

[Article by Janos Marton, director-in-chief of the Agricultural Economics Research Institute: "Further Development of Conditions for Competitive Foodstuffs Production"]

[Text] All essential conditions for satisfying the food needs of the populace have been created in our homeland. In connection with this the overwhelming majority of agricultural products marketed domestically go to a saturated market. This is a novel phenomenon in socialist countries and thus far it has not been evaluated from either the political or scientific viewpoint in a way which can be generalized theoretically. In addition it has been only a short time even in our homeland that supply has been proportional to demand in the basic foodstuffs--bread, fats, meat, milk, sugar and the chief refining products.

Earlier, in the decades of the so-called "shortage economy," the Hungarian foodstuffs economy, like those of the other socialist countries, had to struggle primarily with the quantitative problems of production. In this situation socialist agricultural economics could make use of generally valid laws in regard to social state guidance and enterprise leadership. Under the conditions of a saturated domestic market, however, new laws take effect. There necessarily appears a competition among producers which is turned into an economic constraint by the fact that the external market demands have taken a leading role in determining the growth of our foodstuffs production. And our agricultural export meets with "ruthless" competitors everywhere. Even in the socialist countries the increasingly severe value judgement of the international market sets the prices and quality requirements which frequently cannot be met.

We are only beginning to recognize and evaluate the constraints of competition in the socialist agriculture and food industry; we are only beginning to look for laws to correspond to competition relationships. In this area--by the essence of the matter--we cannot count on the practical experiences

[illegible] scientific achievements of other socialist countries. So the task falls to Hungarian agricultural economists, the task of discovering the driving forces of competition in [illegible] foodstuffs production, demonstrating the economic interdependencies of it and formulating the conditions, characteristics and consequences of its competitiveness.

Competitiveness has entered our foodstuffs economy as a requirement of today, or more [illegible] of tomorrow, and has created new problems independent of the "change of epoch" in the world economy. It is primarily the healthy growth of our foodstuffs production which gave birth to the new problems, problems which we undertake more happily than the earlier ones. It is true that true agricultural marketing difficulties have not yet become general and in important branches (such as wheat, corn, hogs, sheep, etc.) they are not more serious than the problems of production or have not even yet appeared. But it would be a dangerous self-delusion to think that during the Sixth Five-Year Plan we will be able to save our branches from those marketing crises which we have bitter experiences of in the case of chicken, eggs, potatoes, cabbage, wine, apples and other products. With the exception of wheat and feed grain all our products will encounter competition.

The power of the buyer's market has been realized for us. Agricultural producers must compete with one another in both sales and acquisitions and in regard to both quality and price. Acquisition prices continue to rise at a greater rate than sales prices. This is only partly due to the "energy crisis" and is much more due to the fact that there are not yet any competitive constraints, or very few, in the industries supplying agriculture. In contrast to this, virtually every branch of the foodstuffs industry which buys from agriculture must bear the disadvantages of saturated markets both at home and abroad.

A controlled form of competition is being realized in the Hungarian foodstuffs economy. Central measures create the competition controls. Naturally they are effective only on the domestic market. We meet with many types of competition on the market receiving our foodstuffs products sold abroad, but even abroad we must sell our products on markets which are largely controlled. Naturally the foreign controls are not motivated by Hungarian interests and in the future it will be even more difficult to find conditions approximating our interests.

When we speak of increasing the competitiveness of our foodstuffs production we must start primarily from our external market situation. Here at home (for the time being!) even the controlled competition extends only to those products for which the state does not reduce the production costs of the producer or the price burden of the consumer. (Eggs, live poultry, fish, wine, raw vegetables, fresh fruit, potatoes, mushrooms, ornamental plants, horses, etc.) There is no import possibility for these products, which is explained by our external market situation--a position which I consider to be quite extended. So the consumers are frequently in a disadvantageous situation

and the small producers enjoy all the advantages of the exclusion of foreign competition. In the case of the large producers, on the other hand, income regulation, the tax system and not least of all moral considerations limit the acquisition of profit.

The competitiveness of our foodstuffs production can be measured exclusively by international standards or on the international market. Despite the well known methodological difficulties, an international comparison is necessary for three reasons. In the first place only the international standard can be regarded as truly objective. In the second place the growth of our foodstuffs production is expressly linked to the demands of the external market, since we cannot expect any considerable increase in domestic consumption. In the third place with the aid of the value judgment of the international market we can define more clearly the place of our foodstuffs economy in the rank order of economic branches.

As is well known the competitiveness of foodstuffs production is based on natural conditions, the tools of production, manpower and the way in which all these are used. Production cost is a combined expression of these four factors. If we put our costs on the international balance we can half-way measure the international level of the basis for our competitiveness. Our foreign trade and foreign policy constitute the other half of our basis for competitiveness. The role of these latter two factors is especially significant in every small country and can increase or decrease or even destroy the advantages we achieve in production.

According to a study by the Hungarian Academy of Sciences our natural conditions are sufficient to permit a doubling of our crop production. To this we must add that we have no plowland or gardening crop which might not find a more favorable ecological environment in another country. Our homeland lies on the border of the continental zones of Europe. Thus the variability of climate is greater here, but the extremes are smaller than in northern or southern countries. When we add the variety of our soil and terrain conditions and water management tasks we can say that nature itself has condemned our foodstuffs production to a multiple branch fate.

Finally, the ecological environment can be both advantageous and disadvantageous in our competitiveness as a function of our material-technical preparedness, control, guidance and enterprise behavior.

The technical level of our foodstuffs production is a good bit lower than in the developed industrial states where the value of fixed assets and circulating assets per producer is many times more than here.

Large numbers of modern machines in plowland crop production and gardening, well functioning equipment in animal husbandry, and technological equipment in the foodstuffs industry constructed from outstanding elements which are usually only a few years old increasingly characterize the foodstuffs economy not only of the rich capitalist countries, but also of the moderately

developed countries competing with us (Italy, Spain, and Yugoslavia). The difference is especially striking in regard to the final stages of production and in the area of the technical development of storage, classification, transportation, preparation, packaging, etc. directly linked to the market. Despite the undoubtedly great results which we have achieved in technical development in the past 10 years we should not forget that our competitors have progressed more quickly than we in modernizing the material-technical base.

The technical level of household plot and auxiliary farming, which represents nearly one-third of agricultural production, surpasses many times the technical level of most small farms in Africa and Asia. But for the time being there have been only reassuring initiatives to suggest that the Hungarian small farms will even approach the technical level of capitalist small farms. The lack of modern small machines and equipment holds back primarily the competitiveness of small commodity producing farms and limits the activity of the small producers who are willing to take the initiative.

The ample quantity, composition and training of the labor force is fully suitable for our foodstuffs production to be competitive even internationally. Considering the number and skills of the workers, we can expect substantially greater performance from our foodstuffs production even with the present equipment. There is a seasonal manpower shortage in a few gardening and foodstuffs industry branches, but this is a factor of little significance in regard to the competitiveness of our foodstuffs economy as a whole, given the domestic employment circumstances.

Because of the large degree of flexibility in manpower use in small production the quality of production may be moderated in some cases only because of a lack of expertise.

The way in which natural, technical and labor resources are used and the organization of production merit attention from the viewpoint of our competitiveness primarily in the large operations.

The organization of production can be considered absolutely exemplary, even by international standards, in large scale plowland crop production. The use of assets and the productivity of live work, especially in the wake of the spread of the production systems, offer a suitable foundation for our competitiveness. This is evident also from the fact that the costs of plowland crop production are substantially lower than the international price level of products deriving from this source.

The situation is reversed in animal husbandry where the harmony of production factors, and especially the organization of work, are criticized by professional foreign organizers and colleagues visiting our animal husbandry sites from the GDR, Western Europe and North America.

such an internationally supported comparison cannot be given for large scale gardening production. In the course of organizing production the gardening branches of the state farms and producer cooperatives struggle with problems which differ from those of capital-rich foreign competitors and competitors who face no manpower shortage. We do not have sufficient developmental resources to harmonize their equipment levels with the quality requirements and they do not have sufficient interest in compensating for the technical deficiencies with employment discipline.

In regard to the utilization of foodstuffs industry resources, almost everything which I have said about the gardening branches is valid also.

The representatives abroad of the Ministry of Foreign Trade have made a profound analysis of the international competitiveness of Hungarian foodstuffs production from the aspect of costs. According to the evaluation published in 1979, Hungarian agriculture produces at a cost level which is a good bit more favorable than the European average, primarily as a result of the more modest assets. Similar results were obtained on the basis of a comparative costs analysis carried out jointly by Finnish, Polish and Hungarian agricultural economics research institutes. Assets use by Finnish and Polish agriculture is a good bit greater than that of Hungarian agriculture per unit of production and per unit of manpower. But the efficiency of live work in our homeland is lower as compared to both countries. Work intensity also is substantially lower than in Finnish or Polish agriculture.

Laszlo Vadasz, in his outstanding book comparing Danish and Hungarian agriculture, points out that Danish agriculture lags behind Hungarian agriculture only in the indexes for area use and assets efficiency. Danish agriculture ranks ahead of Hungarian agriculture in every other economic comparison, but especially in regard to the productivity of live work.

I must also call attention to articles by Jozsef Nemeth, our agricultural attache in Washington, which have appeared in professional journals. These show that area use and the return on one-time and continuing expenditures are substantially more favorable in Hungarian agriculture, but the productivity of live work is a good bit lower than in the United States.

Janos Nagy, analyzing the development over a number of years of the agricultural investment and production of CEMA countries, came to the conclusion that among CEMA countries the production increment per unit of agricultural investment was greatest in our homeland. But the productivity of live work is higher in a number of CEMA countries than it is in our homeland.

The international comparisons suggest that we cannot attach excessive hopes to increasing assets efficiency and we cannot expect any considerable improvement in the productivity of live work from this. So we cannot avoid the tasks of technical development and we cannot replace them with the results which undoubtedly do spring from leadership, organization and enthusiasm.

Meat, Grain Production

Budapest MAGYAR MEZOGAZDASAG in Hungarian No 36, 1980 p 8

[Article by Dr Vilmos Marillai, scientific deputy director of the Agricultural Economics Research Institute: "Where is the Grain and Meat Economy Going?"]

[Text] A few figures well illustrate the social significance of developing the grain and meat branches. It is enough simply to note that grain production takes place on two-thirds of the plowland area and provides almost 60 percent of the value of plowland crop production. Taken together the proportional value of hog, poultry and beef branch meat production comes to almost 30 percent of agricultural production. Thus the grain and meat branches account for almost 60 percent of all agricultural production. The importance of the two branches in the foreign economic area is even more striking. Grain and meat account for 60 to 62 percent of all exports of the foodstuffs economy and for 78 to 80 percent of it in the dollar relationships--depending on annual variations.

The socially justified developmental trends and magnitudes of the next plan period can be weighed realistically only if we start from a basic analysis and evaluation of our natural and other conditions. It is important, however, that in formulating our ideas we not stick exclusively to present conditions, but rather, as in all planning work, that we select the method of tracking a "moving target." This must be interpreted in the broadest economic sense, as a uniform whole or complex, ranging from production factors through internal and external conditions to quantitative, qualitative and structural changes in needs. What sort of changes can we think of when developing the grain and meat economy?

A Task for the Processing Industry Too

The significance of grain production is illustrated by that approximately 3 million hectares from which we harvested each year 12 to 14 million tons of product in the plan period now ending. This covers secure domestic supply and it also covers the related fodder needs of the animal husbandry branches. The foreign economic significance of grain export is also very noteworthy. The increasing need for grains, with the generally decreasing consumption of cereals, appears most of all in the manufacture of fodder mixes. Calculations permit the conclusion that the producing area needed will not change substantially in the coming decade; so there will be about 3 million hectares on which to improve the present 56-58 percent utilization of the genetic potential. Under large-scale conditions a utilization of the potential of up to 70-75 percent is possible with wheat. So we can count on an average yield of 4.6 to 4.9 tons per hectare for edible wheat, and 5.2 to 5.6 tons for fodder wheat. The candidate varieties for fodder barley may bring yields of 4.0 to 5.5 tons. In the case of corn the potential could increase to 9.0 to 12.0 tons, depending on the expansion of

hybrid varieties, so we can realistically predict large-scale average yields of 6.1 to 6.5 tons. It is important to know that these yields will bring with them an increase in expenditures but still they should improve the efficiency of production.

Among the industries directly linked to grain production the milling industry will have increasing grinding tasks and this will require development of the present deficient conditions. (More than 60 percent of the milling industry fixed assets are worn out.) Improving the grain industry conditions for storage and transportation will require even greater expenditures. The transportation need of the branch can be put at about 18 million tons by the mid-1990's when the emphasis of transportation developments should be placed on improving the ratios of special body vehicles and water transportation. It seems necessary to improve the storage capacity of the milling industry by about 50 to 60 percent, thus by 4.5 to 5 million tons, during the Sixth Five-Year Plan.

Grain products provide 68 to 70 percent of the ingredients of fodder mixes. The system of repeatedly transporting them is outmoded. The modernization of production capacity is unavoidable in the fodder manufacturing industry, but at the same time the increase in capacity is justified primarily in the large agricultural operations (or in associations thereof). Extra capacity for the manufacture of concentrates might be prescribed largely in industry, and to a lesser extent among the large agricultural operations which are prepared for it.

The developmental variants published thus far and still debated today agree on one question of theoretical significance: namely, that any development of the meat branch must be judged primarily from the aspect of increasing export performance, simultaneous with an improvement in the quality level of domestic consumption. The satisfaction of domestic needs is tied to meeting the quality demands of increasing exports. The two cannot be separated from one another.

Dynamically or Maintaining the Level?

Two developmental variants should be considered on the basis of figures for recent years. Naturally there could be more or less characteristic transitional versions between these two involving smaller or greater compromises in the interest of strategic realizations under the given conditions. Development aimed at maintaining the level reckons on meat production which is not quite 3.5 percent higher in the next 5 years; dynamic development reckons with an increase of nearly 14 percent. If we improve conditions for exporting raw material the quantity of meat with bones could increase more than this, by 6.0 and 21.5 percent respectively. The value of exports between these two production limits can be expanded from 4 percent to nearly 60 percent--these are not grandiose statistics!

The structure of meat production could develop as follows:

--the hog branch maintains its ruling position in the production of slaughter animals (slaughter hogs having a share of about 56 percent);

--the 23 to 25 percent share of poultry production requires greater market flexibility in the projected plans;

--beef production, with a 16 to 17 percent share, changes little; and, finally,

--the foreign exchange earning significance of lamb and mutton production increases.

The structural ratios will probably stir debate among many experts. First of all, there are questions about the possible or desirable increase in the ratio of ruminants. One can justly compare the ratio of the starch value and the digestible protein of the fodder used to the animal protein produced, which is smaller for animals eating grain. The picture is different if we compare it to the area producing fodder where the animals eating grain produce more animal protein than the ruminants. In any case some of the most exciting questions of the developmental conception are meadow and pasture management, discovering further possibilities for using byproducts and producing better conditions for this than at present.

The technical level of the industrial phase of the meat branch, the meat processing industry, is in a disadvantageous situation as compared to agriculture. It is unfortunate for any realistic development that the possibilities of the international division of labor have not been realized or have been little realized thus far, so that laying the foundations for an internationally coordinated industrial development policy is an urgent task. We can seek the reason for the backwardness in the technical level of the meat processing industry in the undeveloped food industry machine manufacture.

Grain or Meat?

The first strategic question in the development of the grain and meat economy is: Which is it more advantageous to export, grain or meat? It is obvious that put this way we cannot agree with the question itself. The export as grain of the grain branch is favored by its increasing strategic significance on the world scale and by the favorable foreign exchange yield. But neither can we ignore the transportation, storage and development aspects of a large volume product and the corresponding developmental ideas of the receiving countries. Increasing meat production for export is favored by the increase in the amount of foreign exchange taken in, over the longer run by the smaller import ratio for processed meat products, the lower energy content, the more favorable land use, the fact that more domestic labor is turned into foreign economic performance, and the more modest developmental needs for more even transportation tasks. In regard to time,

the conditions already developed for grain export give priority to the solution of these tasks, while creating an export base for competitive meat production will require deliberate work for the entire ninth decade. From the viewpoint of long-range export strategy, the development of meat production is unambiguously more favorable.

As for us, we favor the strategy of a dynamic development of the grain-meat branch as opposed to maintaining the level. Naturally this will require improved leadership of economic policy and presumes that quality work (optimal expenditure structure, market information, overcoming organizational deficiencies, etc.) will become general in the producing areas and enterprises of the foodstuffs economy.

Guidance must synchronize the complex regulation developed for the domestic economy (its enterprises) with the requirements of the sharpening foreign economic competition situation. Simply copying the foreign economic mechanism for domestic conditions is not possible; rather, by perfecting the regulators (using planned market mechanisms) we must create a real competition situation. Naturally a viable competition can exist only among real enterprises. For example, the material interest in these enterprises should not be mixed with official permits and factors of administrative power superiority should not deform relations among enterprises in the role of a personification of the state will. We are presuming that the needs of the external market and the performance thereon will become the unambiguous and direct measure of enterprise achievement. These are not questions of size, of "large" or "small" or "medium" operations, but rather lead to the necessity of a viable and competitive enterprise network and structure for the foodstuffs economy. In this system the chief role will be played, within enterprise frameworks, by the developmental level of the concrete forces of production, the regional viewpoints of ecological factors, the many-multifaceted but primarily suitable forms of activity in the chain extending from the producing fields to the tables of the consumer or the warehouses of the importer.

Horticultural Products

Budapest MAGYAR MEZOGAZDASAG in Hungarian No 36, 1980 p 9

[Article by Mrs Gimes Anna Burger, university professor, Horticultural University: "The Competitiveness of Horticultural Products"]

[Text] The steps taken in the past decade in the interest of gardening production brought noteworthy results. The production of some types of vegetables--for example peas and red pepper--was completely mechanized, thus largely solving the earlier problems connected with labor intensity. Mechanization and chemicalization made progress in the case of other horticultural products also. Vegetable yields increased significantly; the average yield per hectare for some types of vegetables has increased 2 to 2.5 times since the end of the 1960's. Average yields for grapes

have increased considerably also, by more than 50 percent on the large farms. This cannot be said about fruits because with the exception of apples, and one or two other types, there has been a decrease in average yields and total crop. Small production has been consolidated. The small farms produce 45 percent of our vegetable production, 52 percent of our fruit production and nearly 60 percent of our wine production. Forced vegetable production, primarily in plastic sheet greenhouses, has developed especially strongly in recent years on both large and small farms. By this means and with the significant development of vegetable and fruit processing and storage domestic consumption has become more even throughout the year and the branch has been able to satisfy the demands of foreign trade to a greater degree.

The capacity of the processing industry has increased considerably also. The Hungarian canning and deep freeze industry processes 46 percent of our vegetable production and 28 percent of our fruit production.

During the 1970's various associations multiplied in the production, processing and marketing of garden produce. There are 34 gardening systems in operation, the majority of them in some integrated form for the production, processing and marketing of some product. Various associations and undertakings have been formed for joint investment and development and for joint marketing and one of the four experimental agricultural industry associations is a horticultural one. The combine form, which has proven itself in wine production, continues to work well.

A More Marketable Product Structure

It is well known that the production of many vegetable and fruit types is still only partly mechanized and that some of it--primarily harvesting and pruning--is very labor demanding. Mechanization--keeping good quality in mind also--is in part unsolved and in part is import-demanding and expensive. The average yields of a number of vegetable types--primarily those for which there has been progress in mechanization and the modernization of production--have increased considerably, but most of them still lag behind the yields of more developed countries. The situation is similar in regard to fruit types.

Thus although there is no longer any danger, as a result of favorable measures and development, that vegetable production will not be able to satisfy domestic needs and have something for export, the satisfaction of needs today largely takes place with a narrower product scale than earlier. A significant place in this is occupied by the vegetables of the preserving industry. The situation is similar in the case of fruit supply, where the variety has become poorer. Nearly 40 percent of our domestic fruit consumption consists of apples and tropical fruit. Apples make up 90 percent of our fresh fruit export. The production of several sought after fruit types which could be sold well abroad too is decreasing or is not sufficient.

Because of the labor requirements for production, the relatively low yields, the increasing costs and the low profitability the large-scale fruit area has been decreasing for years, there is not enough replacement and the plantation plans are not being fulfilled.

The preserving industry is struggling with problems too. Our refrigeration industry, which is modern and has sufficient capacity, does not receive the variety of raw materials which could be sold well at home and abroad after processing. The canning industry frequently does not have sufficient receiving capacity in peak season and its equipment is not modern enough.

The expenditures for trade in fruits and vegetables are high. The goods frequently go through too many hands and there are many reloading costs. It is not only that there are large numbers of buying and selling transactions, frequently the goods themselves travel too much. Thus, as a result of the still frequently inadequate packaging, shipping and storage, there are large commercial losses. There is still very little trade in modernly processed, cleaned, sorted, packaged, kitchen-ready goods; it is as if their number has even decreased in recent years. Trade does not have enough refrigeration-storage capacity or enough money for development.

Fresh and processed gardening products--vegetables, fruits, spices and wine --make up 45 percent of our foreign trade in foodstuffs. We export about 40 percent of the vegetables and fruits produced in fresh or processed form and we export nearly 40 percent of our wine production also.

But the export economicalness of the majority of the horticultural products is low.

It seems self-evident that there is need for the development of gardening production in Hungary, both to better satisfy domestic needs and in the interest of export. It would be desirable for there to be a more even supply of a greater variety of better quality goods and for there to be more processed, modern products.

Interest and the Enterprising Spirit

Thus far our large agricultural operations have been interested primarily in the production of well mechanized products which require little manpower, can be organized simply, and provide adequate income. This has hindered specialization, whatever the natural conditions of the farms otherwise.

But there are very many reserves--including manpower which can be mobilized --for further specialization in the producer cooperatives in the traditional vegetable producing areas of the north and south great plain, Heves and Pest megyes and the areas developed for fruit and grape production. But interest in it must be created. In my opinion what is needed to encourage

production and export is not a better regulator system, but rather substantially less regulation than at present and simplification of the withdrawal system. More should be left to the intiative and business sense of the enterprises. This includes support for free undertakings by enterprises striving for greater profits and for greater personal interest dependent on better performance.

Private producers farming on small farms, household plots, gardens and weekend places produce nearly 50 percent of the domestic gardening products on a fraction of the large-scale areas. It is obvious that their yields are a good bit higher than those of the large operations too. It should be possible to achieve this on the large farms too and profitability would increase with the increase in yields. This is supported by the fact that even at present there is a large income spread in proportion to yields. Very great differences hide behind the average profitability figures, to the benefit of farms with greater average yields. In addition to better utilization of manpower we must naturally increase mechanization too, insofar as possible, because fewer and fewer people today will undertake hard physical work. This is shown by the mechanization efforts of the small producers too.

Processing and Trade

The enterprising spirit should be increased not only in production but also in the area of processing and trade. We should support the creation of freely chosen froms of cooperation based on the common interest of producing, processing and trading enterprises. We might include here small undertakings as well. There is need for more flexibility in the present situation in both domestic and foreign trade; the goods should appear quickly where they are needed, we should fill the gaps, find new markets, offer new products and quality, and withdraw goods from places where they cannot be sold or have a poor market. Such a flexible trade policy could often be conducted more easily and more profitably with small volumes--and to the greater satisfaction of the customers--than with large volumes moved by large organizations.

In the interest of increasing enterprising spirit the industrial processing and commercial enterprises should be made more sensitive to interest. Much has been written already about how the large enterprises here, in a monopoly situation, are not sensitive to costs. This applies to both income and market sensitivity. The present megye divisions strengthen the secure position of the ZOLDKER [Trade Enterprise for Vegetables and Fruit] enterprises which conduct a significant part of the domestic vegetable and fruit trade and serve to eliminate competition. The foreign trade enterprises also have strong positions. It depends only on their good conscience whether they find those gaps in the present foreign market situation which could be filled by their products, whether they search out new markets and carry out good marketing activity, whether they order new products and

goods which could be sold well from the delivering enterprises, whether they sign contracts with them based on common interest and risk, or simply try to sell the goods offered on well proven markets to well known customers. In the latter case, too, they are satisfying their obligations and no one can blame them.

So, first of all, if we are to be competitive we must create in the enterprises competition and real interest in competition.

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CSO: 2500

COAL MINING INVESTMENTS DESCRIBED

Budapest FIGYELO in Hungarian No 37, 19 Sep 80 pp 1, 7

[Article: "Coal Mining Investments"]

[Text] The medium-range plan period which we shall complete within several months has brought a significant change of attitude in our judgment of the role played by certain energy sources. Increases in the price of hydrocarbons, which began in 1973 and have grown since then by leaps and bounds, in addition to the political maneuvers linked to hydrocarbon production and consumption, ended at one blow the era of cheap energy sources. Around the world this made way for the renewed development of coal production as well as for an accelerated rate of development or research in atomic energy and other energy sources.

Hungary could not escape the effects of this "world trend" either. Since 1974 there have been many party and government resolutions on the intensified exploitation of domestic resources and the halting of the cutback in development of coal mining which was begun earlier, and, in fact, in support of the development of our economic possibilities.

Backward and Forward

With about 10 years of planned cutback in development in the coal industry, the peak production of 31.4 million tons in 1975 fell to 24.9 million tons, and manpower decreased from 120,000 to 86,000 workers. It was not the extent of our coal resources that justified this cutback development (indeed our reserves assured us production possibilities for 100 years), but the fact that the low import prices for hydrocarbons, which we acquire largely by way of import, made it impossible for the costs of our coal production--which is carried out under geological conditions below that of the world average and is of poor quality--to withstand competition. Advantageous economic effects also accompanied the planned cutback in development: with the shutting down of the most uneconomical mines and the general introduction of the wall method of mining, there was a significant increase in the concentration of

production with the centering of a significant portion of the limited development work on mechanization, the results improved and the safety of this work was intensified.

An outline of the expansion of development possibilities is presented in the following table:

Coal mining investments in the Fourth and Fifth Five-Year Plan Periods (in billions of forints)

	Fourth Five-Year Plan Period (actual)	Fifth Five-Year Plan Period (anticipated)
Large state investments	1,473.4*	5,950**
Enterprise investments	6,386.9	11,300
-and this: investment supplements	2,496.4	2,720
-and this: supplementary technical development	2,543.4	5,810
Total state and enterprise investments	7,860.3	17,250

*Largely the remaining investments at the Visonta Thorez surface mine.
**Largely the building of new mines at Markushegy and Nagyegyhaza, as well as preparation for the building of the Many, Lencsehegy and Mecsek mines.

It is characteristic of coal mining that because of the limited number of site construction works that can be established (in common language, the relatively few points of attack that are available) it takes, even with intensified development possibilities, 5 to 10 years to turn around a declining production trend. Thus, despite the additional investments in the Fifth Five-Year Plan period, the production level in the branch will remain unchanged.

The Future of Coal

The bulk of the large state investments during the present plan period are determined by exhaustion; but in comparison to the domestic average, good quality coal is offered by two new mine openings in the Komlo and Nagyegyhaza basin (Markushegy and Nagyegyhaza). Because of the rapid exhaustion of the old mines operating in this area, the main task now is to start by the middle of 1981 the mechanized front extraction of production in both mines.

[illegible] the framework of the Varpalota investment which has been proceeding [illegible]. In domestic record time they sank the 1.5 kilometer-long inclined shaft, and made ready the so-called central entrance shaft and the airshaft. They built the underground delivery and air passages, the central dewatering site, and the electric energy basis. On the surface, work is in full swing on construction or fitting of the central shaft and the facilities planned for the inclined shaft yard as well as the implementation of the 9-kilometer long rubber-strip track. Producer and delivery equipment is also continuously arriving. It also seems certain that the deadline will be met for starting production, although in order to run production up to full capacity mining construction work will proceed continuously through the Sixth Five-Year Plan. The Markushegy mine will be Hungary's first truly modern coal mine with its annual planned capacity of 2.4 million tons, its 8-ton per shift overall operational performance, its extra-long full mechanized excavation work, and its mechanized delivery line. The cost of the entire investment program will reach 6.8 billion forints, of which 60 percent will be used up to the beginning of production.

Mining construction at Nagyegyhaza, which has been under way for 4 years, is also proceeding at a satisfactory rate. One of the 1,000-meter long inclined delivery shafts--in very hard rock--also was ready in record time as well as the central, so-called II perpendicular shaft. Work on the driving-on line of the second inclined delivery shaft is proceeding beneath the coal bed and leading to good quality bauxite production.

Combined with new water entries, the tapping water protection against the well-known danger of the mine area to water penetration is based on the water resistant areas to be formed in the various gradients of the mine and on the VI water shaft below the driving-on line. The advanced preparation in the implementation of the shaft area facilities and the underground mine areas give hope that the beginning of production in the Markushegy mine will be followed within 3 to 4 months in the Nagyegyhaza mine as well. Here the mine building operations will be continued into 1986. In part, these will increase the capacities for coal production; and in part, they will create the conditions for bauxite production to be started in 1985, as well as the construction of an elevation system for rise water.

The mine with an annual coal production of 1.6 million tons and an annual bauxite production of 0.5 million tons as well as the production of 3,600 cubic meters of drinking water per hour will become, after it enters into full production, a highly productive 3-product operation. Most of the quality coal will be delivered by truck to Tatabanya, the bauxite will be delivered by rail to the Almasfuzito alumina factory, and the drinking water will be supplied to the regional water piping system to be built at Tatabanya-Oroszlany. The cost of the entire investment program comes to 6.6 billion forints, of which about 45 percent will be used before the start of production.

A Shortage of Cokable Coal

As a large state investment, planning as well as local preparation is proceeding on the new mines at Many which are linked to the Bicske Thermal Power Works and the Lencsehegy II beside Dorog. (Because of the limits nowadays on investments and the uncertainty of long-term energy requirements, no decision has been made as yet on implementing the Bicske Thermal Power Works.)

The worldwide shortage of cokable coal and the annually increasing cost of its import is imposing an unbearable burden on our domestic metallurgy which is constrained to rely on imports for 70 percent of its needs. For this reason the decision was made that by relying on the cokable coal resources of the Lias deposits in the Mecsek we should investigate the conditions for doubling domestic cokable coal production by 1990, which would reduce the import ratio to below 50 percent.

The almost 3 billion forints of Mecsek (enterprise) investments for the fifth five-year plan are already being adjusted to this development goal. This represents the first phase in the so-called Lias program which is presently being implemented and requires about 18 billion forints in investments. The essence of this program is the forming of new producer levels and their partial merging underground, the significant raising of capacity in the Pecs and Komlo mines, the modernization of technology, intensified protection against the danger of gas outbreaks characteristic of Mecsek coal mining, a comprehensive arrangement of surface deliveries, and the reconstruction of the Pecsujhegy coal dressing and capacity expansion.

Modernization and Its Sources

For the most part, enterprise investment in coal mining between 1976 and 1980 served 3 goals:

--it supplemented exhausted coal resources, that is, solved certain bottlenecks of production;

--machine acquisitions served the modernization of mining technologies, the replacement of obsolete machinery, the easing of labor tasks, and the countering of the constant slow decline in manpower;

--those developments which are directed at the modernization of repair-production-fitting workshops make it possible to implement investments in time, to manufacture certain means indispensable for technical modernization, and to a limited extent to export mining equipment or carry out manufacturing cooperation.

In the sphere of nonproducer investments we are devoting significant sums to purchase protective and health defense gear to guard against dangers that threaten mining (gas, fire and water) and to modernize certain social, cultural and work supply facilities (baths, rest homes, houses of culture, and so forth).

To implement the investments the coal mining industry has received--in addition to a 100-percent amortization withholding subsidy--4.5 billion forints' worth of state support in the plan period. With this help, most of the outlined enterprise investment goals can be realized.

In investment activity, we must improve cost planning, and as the first condition thereof the organization of implementation. The fragmentation of investment sources is evident particularly in enterprise investments. A higher level of technical control work, a more consistent accountability for planning-implementation errors, and if necessary enforcement by legal recourse, is indispensable that the planned technical content should be fully realized from available financial resources. We must also devote greater attention than heretofore to see that with these investments we achieve not only the technical goals, but also the economic achievement goals, to the planned extent and at the planned rate.

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DEVELOPMENT, PRODUCTION OF CEMENT, LIME, GYPSUM INDUSTRY DESCRIBED

Warsaw CEMENT WAPNO GIPS in Polish No 5, May 80 pp 116-119

[Article by Karol Watola, Manager of Investments and Development, Association of the Cement, Lime and Gypsum Industry in Sosnowiec]

[Text] Introduction

The 120-year-old Polish cement industry has passed through various development phases, based on changes in engineering and technology as well as on the situational changes that occurred during this time.

After World War II, as the construction industry developed, the cement industry developed rapidly, expanding particularly intensively by 1965.

Mistakes in estimating the demand for cement in the 1960's resulted in a weakening of the growth rate. Because growth of new production capacity came to a halt, existing cement shortages became more acute, which in turn not only made it necessary to discontinue exports, but even made it necessary to import considerable amounts of this material.

In the past ten years, due to construction of a series of new cement plants and modernization of several older ones, the Polish cement industry increased its production capacity 100 percent in relation to 1970, attaining an engineering production capacity of 25 million tons annually. However, internal conditions permit utilization of only 84-88 percent of production capacity, or 21-22 million tons of cement annually.

The lime industry gained some modern plants during the last decade, in Tarnow Opolski, Kowal near Kielce, Bielawy and Trzuskawica. The Polish-design shaft kilns, 140 tons per day capacity, and the Maertz counter-current shaft kilns that were built, increased the production potential from 2.7 million tons of lime in 1970 to 3.8 million tons in 1979. The most obsolescent oval kilns were eliminated entirely and the old chimney-draft shaft kilns were partially eliminated.

The gypsum industry expanded its product range, mainly by modernization, adapting it to construction requirements. Production of special plaster

binders, wall elements made of dry gypsum plasters, and sound-absorbing, fire-resistant and decorative gypsum panels, was undertaken. Industrial production of "honeycomb" type gypsum partitions began. Gypsum panel production increased from 2,645 thousand square meters in 1970 to 6,565 thousand square meters in 1978.

State of the Art

Despite the tremendous progress made recently, the Polish cement industry still has a greatly varied stock of machinery. Along with the new cement plants ("Gorazdze," "Ozarow"), there are in operation clinker kilns dating back to the turn of the century, kilns that lack dust-collection systems, are very harmful to the environment, and require a large share of direct labor.

Today in the Polish cement industry almost 63 percent of the clinker produced is obtained by the wet method for preparing the raw-material charge, a method that is very fuel-intensive.

In highly industrialized countries, the wet-method share is 20-30 percent. For some time now, particularly because of the energy crisis, the less energy-intensive dry method is used, and, in some cases, the semi-dry method.

The small share of dry-method clinker production in the Polish cement industry can be attributed to several reasons, including the following:

-- in the immediate post-World War II period, production potential was increased by rebuilding and expanding existing cement plants, most of which operated by the wet method,

-- during the 1950's and the first half of the 1960's, construction of new cement plants was based on deliveries of equipment from the socialist countries, and these had installations that operated only by the wet method. Using equipment from the second-payments-area countries [capitalist countries], the following cement plants were built: "Nowa Huta," with a production capacity of 300,000 tons of clinker annually, and "Rudniki," 600,000 tons of clinker annually, both operating by the dry method; "Pokoj," with a production capacity of 300,000 tons of clinker annually, and "Chelm," 720,000 tons annually, both operating by the wet method, which in this case was made necessary by the high dampness of the raw material, as much as 25 percent .

-- stagnation of the Polish cement industry during 1965-1970 caused a backing-up of investments during the 1970's, thus creating a very large demand for equipment for the seven cement plants being built during this period. Limited foreign-exchange funds for purchases in the capitalist countries resulted in the purchase of dry-method equipment for two cement plants, "Gorazdze" and "Oczarow," during this period.

in the lime plants, production equipment is even more varied than in the cement industry. There is still a chimney-draft kiln operating in this industry. About 25 percent of the plants are technically and physically obsolescent, making general modernization impossible.

The possibilities of intensifying production are also minimal due to the fact that reserves were totally depleted in the prior years, during which investments in the industry ceased. As a result, production shortages in relation to demand increased still further, particularly in the industries which grew rapidly after the mid-1970's: the metallurgical industry, the chemical industry, agriculture, the food industry, and the construction industry. These shortages can be alleviated only by investments.

Although Poland has very rich deposits of rock gypsum and large quantities of calcium phosphate (waste materials from artificial fertilizer production in plants in Police and Gdansk), the gypsum industry still has only one gypsum and gypsum products plant, in Gacki near Pinczow. This plant, despite constant expansion and recent modernization, does not satisfy the steadily increasing demand, especially for various types of gypsum mixtures and gypsum prefabricated wall elements.

Estimated Demand for Products of the Cement, Lime and Gypsum Industry During 1981-1985

The demand for cement, lime and gypsum products is a function of the size of construction-assembly production and also of the growth rate of such branches of industry as metallurgy, chemistry, road construction and the farm-food industry. Assuming 14 to 18 percent growth in national income during 1981-1985, and 20 to 24 percent growth in industrial production, including:

-- 18 to 23 percent growth in the mineral industry,
-- housing construction increase to 1.7 million higher-standard dwellings,
-- 14 percent increase in steel production (to 24 million tons),
-- 28 to 34 percent increase in chemical industry production,
-- 12-13 percent growth in agriculture,

then the size and growth rate of demand for basic products of the cement, lime and gypsum industry can be determined. These values are given in Table 1.

Expansion assumptions were based on full coverage of these demands, taking into consideration mainly:

-- the greater growth rate of construction's demand for lime and gypsum products (on the order of 20 to 50 percent) as compared to cement (13 percent growth rate, with export increased to 3-4 million tons annually). This is necessary because the structure of the consumption of mineral binders has to be changed so as to further reduce the use of cement and replace it

Table 1. Demand for Cement, Lime and Gypsum Products

(1) Produkt	(2) Jednostka miary	(3) Zapotrzebowanie w roku		(4) Dynamika wzrostu zapotrzebowania 1985/1981
		1981	1985	
(5) Cement	(14) mln ton	24,0	27,0	113
(6) Kamień wapienny	mln ton	10,2	12,6	123
(7) Wapno budowlane przemysł.	mln ton	6,0	7,2	120
(8) Mączki wapienne	mln ton	1,5	2,8	187
(9) Nawozy wapniowe (CaO + Mg)	mln ton	3,5	3,8	108
(10) Spoiwo gipsowe	(15) tys. ton	350	550	157
(11) Ścianki gipsowe i płyty Pro Monta	(16) mln m²	[illegible]	[illegible]	183
(12) Kreda techniczna	tys. ton	100,0	130,0	130
(13) Kreda pastewna	tys. ton	160,0	220,0	119

Key:

1. Product
2. Unit of measure
3. Annual demand
4. Demand growth rate
5. Cement
6. Limestone
7. Commercial construction lime
8. Lime powder
9. Lime fertilizers (CaO+Mg)
10. Gypsum binders
11. Gypsum partitions and Pro Monta panels
12. Industrial chalk
13. Fodder chalk
14. Million tons
15. Thousand tons
16. Million square meters

to a larger degree with binders that are cheaper and less energy-intensive, particularly in dwelling, single-unit and farm-building construction

-- increased demand for lime industry products by metallurgy and chemistry, agriculture and road construction,

-- changes in product range demand for cement, resulting from realization of the "Wisła" program and highway construction.

Basic Courses of Action for 1980-1985

Resolutions passed at the Eighth Congress of the Polish United Workers Party bind the personnel and managers of the industries to take action necessary to improve work effectiveness, reduce fuel, energy and materials consumption in the production process and reduce the impact of industry on the environment.

The strained material balances of previous years plus the simultaneous discontinuance of large imports of cement and the initiation of traditional exports, did not allow the cement industry to attain full production. The

present very high level of production capacity, which satisfies the demands of the construction industry, the market and export, has made it possible to undertake a broad modernization program aimed at greatly improving the industry's effectiveness.

The following courses of action must be undertaken:

-- implementation of the 1979 program for modernizing the "Kujawy" and "Warta II" cement plants, which operate by the wet method, thus achieving considerable savings in fuel with simultaneous increase in production (reducing heat consumption in clinker burning from approximately 75,000 kJ/kg [kilojoules per kilogram] to approximately 4,600 kJ/kg).

-- elimination of imported liquid fuel in the "Kujawy," "Warta II," "Nowiny II," and "Malogoszcz" plants, replacing it with low-calorific-value fine coal,

-- gradual elimination of technically and physically obsolete production units that are energy-intensive, low-productivity, and harmful to the environment. These are:

in the "Pokoj" cement plant -- Plant "A", kilns No 1 and 2,
in the "Wiek" cement plant -- Plant "A", kilns No 1 and 2,
in the "Groszowice" cement plant -- kiln No 3,
in the "Saturn" cement plant - kilns No 1 and 2,
in the "Wysoka" cement plant - kilns No 1, 2 and 3,
"Goleszow" cement plant -- the entire plant,
"Podgrodzie" cement plant -- the entire plant.

-- reconstruction of certain rotary kilns to obtain a reduction in rotary-kiln temperature (replacement or reconstruction of the chain zone) and further reduction of water content in the sludge,

-- elimination of obsolescent installations for pulverizing cement, lime, raw material and coal, and installation of roller-pan mills to pulverize raw materials,

-- use of good quality grinders and linings in the mills,

-- expansion of the "Kujawy" cement plant by one production line with a capacity of one million tons per year,

-- construction of a clinker pulverizer in the "Wiek" cement plant, with a pulverizing capacity of 1,100 thousand tons of cement annually,

-- conversion of the closed-down cement plants into pouring-cement stations,

-- continuance of the construction of the "Przyjazn II" cement plant, at the same time providing for dry-method production and installing decarbonizers, which will allow use of 50 to 60 percent of low-calorific-value

coal (up to 12,500 kJ/kg) and reduce heat consumption for clinker burning from 7,800 to 3,300 kJ/kg.

-- automation of technological processes,

-- continuance of construction of the Aluminum Oxide Plant,

-- construction of a marine cement-pouring station, enabling export of cement in established amounts by using waterways.

Obviously, discontinuance of any of the above should be synchronized with the size of demand for cement and implementation of the cement plant modernization program.

Modernization will result in:

-- a yearly increase of 1,700 thousand tons in cement production,

-- a yearly savings of fuel, in terms of coal, of 1,122 thousand tons,

-- discontinuance of use of fuel oil for cement production, making it possible to use 630,000 tons of heavy fuel oil annually in the national economy, mainly in chemistry,

-- utilization of approximately 700,000 tons of slag from the "Katowice" Steelworks,

-- improvement in environmental protection,

-- significant reduction in employment,

-- reduction in amount of haulage by rail.

Expansion of the lime industry is indispensable to satisfy the demands of the rapidly growing metallurgical industry (with second-stage construction of the "Katowice" Steelworks, demand for limestone for this plant alone will increase in 1983 from 1,800 thousand tons to 2,500 thousand tons, and demand for ground quicklime will increase from 240 thousand tons to 300 thousand tons annually); the chemical industry (limestone and quicklime); road construction (bituminous powder); agriculture (fertilizers); and construction (different assortments of lime, particularly pulverized and hydrated).

The ability to utilize raw materials resources as well as the infrastructure of plants in operation justifies the expansion of existing lime plants: "Gorazdze," "Bukowa," "Ostrowka," "Tarnow Opolski," and Rudniki."

Within the framework of so-called substitutional investments, we intend, during 1980-1982, to build ten type 100 C kilns (four kilns in the

"Gorazdze" Lime Plants, three in "Otmet," and three in "Tarnow Opolski"), which offer low productivity and high thermal consumption per unit of production.

The gypsum industry has no further potential for increased production. Investment enterprises now being conducted in the "Dolina Nidy" Gypsum Prefabricated Elements Plant, to only a small degree satisfy the constantly growing requirements for gypsum and gypsum products. The range of use of gypsum products in construction in Poland is still far different from other European countries and remains very disproportionate in relation to our country's raw materials resources. And thus the construction of the "Stawiany II" Gypsum Plants, which will manufacture high-grade factory-finished elements, is anticipated, as well as the construction of five gypsum prefabricated elements in those places where there is a great demand for gypsum elements.

The chalk industry must be expanded to meet the demands of the artificial fertilizer, rubber, plastics and paints and lacquer industries for industrial chalk; the agriculture industry for fodder chalk; and the construction industry for whiting.

There are shortages in all production types of chalk in relation to demand, which in 1985 will amount to:

-- industrial chalk, 40.00 thousand tons,
-- fodder chalk, 50.00 thousand tons,
-- whiting, 59.00 thousand tons.

It is anticipated that these shortages will be covered when the plants in Kornica and Mielnik are modernized and the chalk plant in Checiny-Sobkow is built, which will also ensure deliveries of rock for production of precipitated chalk in Matwy and white cement in Wejherowo.

Development of Product Assortment in the Cement, Lime and Gypsum Industry

The assortment structure of cement, lime and gypsum products is dependent on, among other things, the development of construction.

Cement occupies an important place among construction materials and continues to affect the country's socioeconomic growth rate. Together with the increase in cement production, resulting from modernization of active plants, and to a limited degree the activation of new investments, it is anticipated that there will be an increase in production of high-grade cements and special cements; for example, grade 350 SP, 450, 550 portland cements, quick-hardening Super 400, road 450, pozzolana and white cements. The share of these assortments grew from 6 percent in 1970 to 19 percent in 1980. During 1980-1985 there will also be an increase in the amount of grade 350 portland cement, but the share of grade 250 will drop significantly in the total amount of cement produced.

The following growth in medium-grade cement is envisaged for the respective years: 1970, 308.3; 1979, 325.0; 1980, 330.0; and 1985, 335.0.

It must be noted, however, that the basic grade of cement in Poland will continue to be portland 350.

Table 2. Percentage Share of Production of Various Grades of Cement

(1) Marka cementu	1970	1980	1985
250	48,5	33,0	28,0
350	48,0	54,4	56,0
SP 350 i 550	—	3,4	5,0
450	3,6	8,0	10,0
Super 400	—	0,7	1,5
(2) Cement biały	0,2	0,2	0,5
(3) Inne	0,7	0,3	1,0

Key:

1. Grade of cement
2. White cement
3. Others

Thus the development of cement product assortment is directed at satisfying construction requirements, both dwelling and industrial.

The use of special and high-grade cements in construction, and particularly in production of concrete elements, should, as production of these cements expands, bring important engineering and economic effects. The assortment program of cement production takes into account the types of cement needed for the industrialized methods of production used in construction, as well as the types that meet the special requirements of different consumers. Independent of the development of cement product assortment, the industry strives to partially replace the expensive and energy-intensive clinker with hydraulic additives, i.e., granulated blast-furnace slag, and pozzolana additives, i.e., fly ash (metallurgical and pozzolana cements). Large savings in energy and coal are thus obtained. Aside from the economic effects, use of additives also brings technical effects, for the cements containing additives, in many fields where they are used, reveal not only equal but even better properties than pure cements. But it should be emphasized that the amount of cement produced with additives should be synchronized with the domestic construction program and cement exports.

As has already been mentioned, the production of lime for construction purposes is low in relation to total lime production, and is as follows:

-- 700,000 tons for cellular concrete,
-- 400,000 tons for the ceramics industry,
-- 200,000 tons for construction.

The envisaged expansion of lime production by 1985 should take into account the stipulation that cement consumption be reduced in favor of the use of pulverized lime for mortar and for production of cellular concrete and lime-sand bricks. This is linked with the changes in assortment structure of lime production, given in Table 3 (only within the framework of the Association of the Cement, Lime and Gypsum Industry).

Table 3. Changes in Assortment Structure in Lime Production During 1970-1985 (in thousands of tons).

(1) Asortyment wapna	1970	1980	1985
(2) Wapno w bryłach tys. ton	1671	[illegible]	1360
(3) Wapno hydratyzowane tys. ton	693	[illegible]	1900
(4) Wapno mielone tys. ton	203	[illegible]	1900
(5) Inne asortymenty tys. ton	63	[illegible]	200

Key:

1. Lime assortment
2. Lump lime
3. Hydrated lime
4. Pulverized Lime
5. Other assortments

The development of gypsum products will be aimed toward greatly increasing the amount of manufactured gypsum binders and prefabricated gypsum elements for construction. The planned assortment structure of gypsum products is shown in Table 4.

Table 4. Planned Assortment Structure of Gypsum Products During 1980-1985

(1) Asortyment	(2) Jednostka miary	1980	1985
(3) Spoiwa gipsowe	(18) tys. ton	180	550
w tym:			
(4) — gips budowlany	tys. ton	138	360
(5) — gips tynkarski	tys. ton	16	65
(6) — szpachla gipsowa	tys. ton	21	60
(7) — mieszanki gipsowo-anhydrytowe	tys. ton	5	55
(8) — klej gipsowy	tys. ton	—	10
(9) Płyty gipsowe	(19) mln m²	3,0	8,8
w tym:			
(10) — płyty gipsowo-kartonowe o grubości 9,5 mm	mln m²	1,7	2,8
(11) — płyty gipsowo-kartonowe o grubości 12,5 mm	mln m²	1,3	4,0
(12) — płyty gipsowo-kartonowe zbrojone włóknem szklanym	mln m²	—	2,0
(13) Ścianki działowe	(20) tys. m²	3100	7800
w tym:			
(14) — ścianki działowe gipsowe 60—100 mm	tys. m²	1360	3200
(15) — bloki Pro-Monta	tys. m²	1600	4000
(16) — wielka płyta	tys. m²	150	300
(17) Opaski chirurgiczne	(21) tys. szt.	600	5000

[Key on following page]

Key:

1. Assortment
2. Unit of measure
3. Gypsum binders
4. Construction gypsum
5. Plaster gypsum
6. Gypsum putty
7. Gypsum-anhydrite mixtures
8. Gypsum glue
9. Gypsum panels
10. Gypsum-boxboard panels, 9.5 mm thick
11. Gypsum-boxboard panels, 12.5 mm thick
12. Fiberglass-reinforced gypsum-boxboard panels
13. Partitions
14. Gypsum partitions, 60-100 mm
15. Pro Monta blocks
16. Large panel
17. Surgical bandages
18. Thousands of tons
19. Million square meters
20. Thousand square meters
21. Thousand pieces

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